Better Farming Methods

PROFESSIONAL MAGAZINE
for Leaders who TRAIN and ADVISE Farmers

Flip Charts

They blend together you, your personality, and your subject. Result? They sell!

See page 48

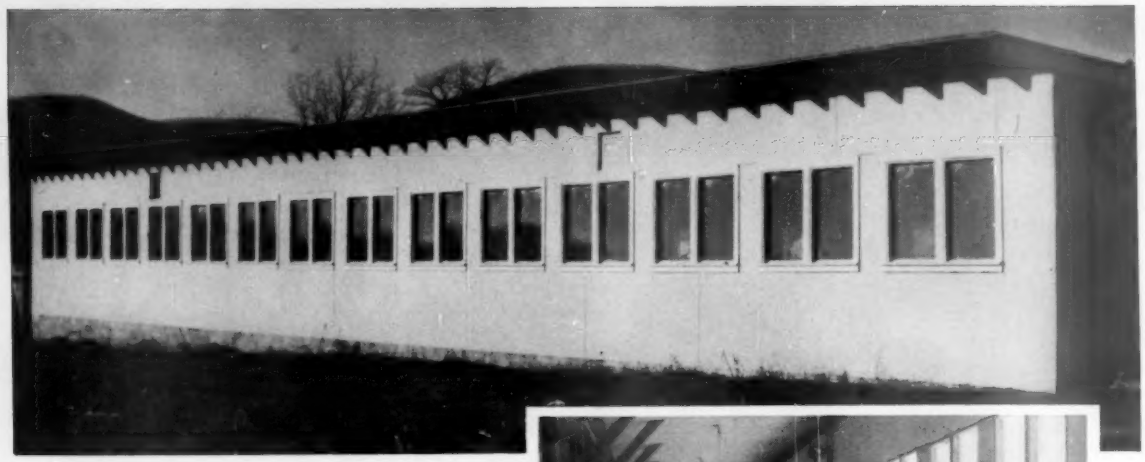
TV

Iowa ag leaders teach boys by TV. So can you.

See page 16

Irrigate to Make a Crop—

not to save it . . . see page 24



Bruce Ulmer shows his F.F.A. adviser and former Vo-Ag teacher, James Bressler, the dryness of the litter in his poultry house last winter. This is achieved by solar heating and effective forced ventilation.

Vo-Ag teacher helps plan solar poultry house . . . for warmer, drier interior in winter

Bruce Ulmer, of Cogan Station, Pa., followed the advice of his former Vo-Ag teacher, James Bressler. He based the design for his new laying house on the success of the experimental solar poultry house at Penn State University.

The design has proved right again. The *Thermopane*® windows flood the interior with winter sun. (Windows are shaded from summer sun by a roof extension.) Interior winter temperatures are maintained at 42 to 46 degrees. Air movement, by two fans, is excellent and the litter stays absolutely dry. This, of course, means cleaner eggs. Ammonia fumes are at a minimum. And the general effect of the warmer, drier building is seen in the healthier condition of the poultry.

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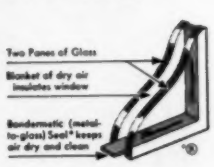

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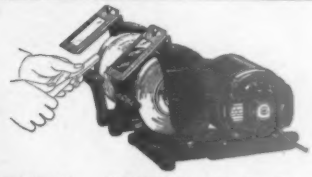

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"Visiscope", the unique electric speed indicator, the most accurate known.

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Super 559	24 Bottle	9"	169.00
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SUDBURY *Lifetime* SOIL TEST KIT

Can Triple Crop Production

Sudbury's finest equipment—widely used by county agents, Vo-Ag instructors, agricultural colleges and government departments—also farmers, nurseries, florists. Approved for government purchase to supply ex-GI students. Rapid and reliable—for all practical purposes, these quick, simple tests accomplish as much as a chemical laboratory. No knowledge of chemistry is needed. No exact measurement required—no medicine droppers. Color Charts have colored acetate windows for comparing by holding alongside test tube so both are read with transmitted light.

Everything for 200 individual tests for nitrogen, phosphorus, potash and acidity (pH). Eight 6-oz. bottles of testing solutions and two of clear water for field testing; 15 test tubes with colored corks; built-in test tube rack, 3 plastic funnels; filter papers; pure tin stirring rod. Complete, easy-to-follow directions have charts which show needs of 225 farm crops, fruits, trees, flowers, etc. In vault-type, welded steel, pearl finished steel case. Size 6"x5½"x18". Weight packed, approximately 14 lb.

F11-1A **Sudbury deluxe Professional Soil Test Kit** **$29.95**

ONLY $29.95 COMPLETE

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Coming Events

April 28-30—National Land Judging Contest, Oklahoma City, Okla.

May 9-11—Silver Anniversary Convention of Minnesota FFA, University Farm, St. Paul, Minn.

May 15—National 4-H Sunday.

May 25-27—American Feed Manufacturers Association Convention, Morrison Hotel, Chicago.

June 6-24—Central Regional Extension Summer School, University of Wisconsin, Madison.

June 12-15—48th Annual Meeting, American Society of Agricultural Engineers, University of Illinois, Urbana.

June 12-15—National Plant Food Institute Convention, The Greenbrier, White Sulphur Springs, W. Va.

June 12-17—Florida State FFA Convention, Daytona Beach.

June 13-30—Negro Regional Extension Summer School, Prairie View A & M College, Prairie View, Tex.

June 14-16—Illinois FFA Convention, State Fair Grounds, Springfield.

June 15-22—National 4-H Club Camp, Washington, D. C.

June 20-22—Illinois Agricultural Teachers Conference, University of Illinois, Urbana.

June 21-23—50th Annual Meeting, American Dairy Science Association, Michigan State College, East Lansing.

June 27-July 15—Southern Regional Extension Summer School, University of Arkansas, Fayetteville.

June 27-July 15—Western Regional Extension Summer School, Colorado A & M College, Fort Collins.

June 28-30—Sixth Annual Regional Fertilizer Conference of the Pacific Northwest, Boise Hotel, Boise, Idaho.

July 3-8—93rd Annual Meeting, National Education Association, Chicago.

July 11-15—Annual Florida State Teachers' Conference, Princess Issena Hotel, Daytona Beach.

July 18-August 6—Northeast Regional Extension Summer School, Cornell University, Ithaca, N. Y.

Better Farming Methods

Professional Magazine for Leaders Who TRAIN and ADVISE Farmers.

Written exclusively for Vo-Ag Teachers, County Agents, Extension Specialists, Soil Conservationists, Farm and Home Administrators, and Bank Farm Service Agents.

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PUBLISHED MONTHLY ON THE 1st OF THE MONTH BY WATT PUBLISHING COMPANY, MOUNT MORRIS, ILLINOIS

Why you should START 'EM WITH

STONEMO Granite Grit

...to give them "TEETH"

...to develop healthy GIZZARDS

...to build strong DIGESTIVE SYSTEMS

Yes, start 'em with Stonemo and help chicks build the healthy, powerful gizzards and strong digestive systems birds need for a large feed intake and higher egg producing efficiency.

Stonemo's extra grinding surfaces go to work in a bird's gizzard—help keep the gizzard and digestive system working efficiently throughout the growth cycle.

Stonemo grinds open the tough cellulose "capsules" surrounding many feed nutrients, helps release the goodness inside for better digestion and feed utilization.

Leading Breeders Recognize the Value of Stonemo

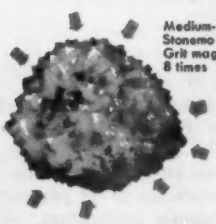
Leading breeders use Stonemo for their own flocks and recommend Stonemo to their customers. The latest recognition of Stonemo's value comes from C. T. Darby, 1954 winner of the Storrs, Connecticut official standard egg laying test. Says Mr. Darby:

"Any old grit won't do. Our birds need grinding power—grit that our birds will consume in satisfactory quantities—and Stonemo answers these specifications."

If you would like to actually hear grinding power, ask your feed dealer to play **"The Story and Sound of a Chicken Gizzard in Action with and without Granite Grit"** as recorded by the Granite Grit Institute of America.

Then ask your feed or poultry supply dealer for Stonemo Granite Grit—the grit with the extra grinding surfaces in the 10-lb. Hopper-Pak self feeder, or in 25, 50, or economy 80-lb. multiwall bags. Remember, for bigger profits, start chicks with Stonemo, and start building healthy gizzards and strong digestive systems now!

STONE MOUNTAIN GRIT COMPANY, INC.
LITHONIA, GEORGIA



Medium-sized Stonemo Granite Grit magnified 8 times

"More eggs per pound of feed with STONEMO" say these leading breeders

C. L. Manwaring

Manwaring Leghorn Farm Mentone, Ind.

"We believe Stonemo's hard, rough grinding surfaces help birds get more nutrient value from their feed, which means more growth or more eggs at less feeding cost."

A. P. Loomis

Honnegers & Company, Inc. Forrest, Ill.

"Our Honneger Leghorns have it (Stonemo) before them just as systematically as their feed and water supply; and it is always part of our poultry program recommendations to our many customers."

Bob Parks

Parks' Barred Rock Farm Altoona, Penna.

"I feel certain Stonemo does a wonderful job of grinding feed in the gizzard, and helps birds make better use of feed. This certainly gives you faster growth or more eggs for your feeding dollar."

H. A. Richards

Harco Orchards & Poultry Farms South Easton, Mass.

"We purchase Stonemo by the car, and feed it generously in the brooder house, on the range, and in the laying pens. Stonemo helps get the last bit of nutrients out of the feed."

C. T. Darby

Darby Leghorn Farm Somerville, N. J.

"Stonemo has played an important part in helping to develop our pullets, which have made such outstanding contest records in recent years."

J. C. Long

J. C. Long's Poultry Farm Meridian, Miss.

"To my way of thinking, Stonemo grit will pay any user real dividends. It enables the birds to do a better job of grinding the feed in the gizzard, and helps them make better use of their feed, resulting in greater profit per bird."

STONEMO—the Grit with the "EXTRA GRINDING SURFACES"

Dieldren Dust Controls Ticks

Dieldren dust is better for controlling sheep ticks than any other dust tried so far, according to tests by the Wyoming Experiment Station. The reasons given for its complete effectiveness are: It stays in the wool long enough to kill the young ticks as they hatch; and it acts as a tailor-made poison for sheep ticks. After shearing, one dusting will rid a band of sheep of all ticks.

Corn Variety Fools the Birds

Preliminary data from test plots last year at the Ohio Agricultural Experiment Station show increased yields as high as 12 percent with a new variety of corn, compared to corn varieties susceptible to bird damage. Workers obtained the resistance factor by breeding a variety with a long, durable husk that covers the complete ear and does not readily open up to permit bird feeding. The hybrid was developed by a USDA agronomist.

High vs Low Vacuum Milkers

According to reports from tests by the New Mexico Experiment Station, there is little difference, for all practical purposes, between high-vacuum and low vacuum milkers, as far as incidence of mastitis, milk yield, and general health of a cow's udder. Either machine did a good job of milking when properly operated and with no apparent harmful effects. More emphasis is needed on good milking technique rather than on trying to find a machine that will milk out the cow without the attention of the operator.

Frozen Cream Butter—Good!

A report from the USDA Farm Paper Letter indicates that 12 dairy processing plants in the Netherlands have been experimenting with making butter from cold-stored frozen cream. Apparently they have been successful at it. The purpose is to produce a product that will offset the lack of demand for cold storage butter in that country. The butter made from stored frozen cream is said to taste the same as fresh butter, have a higher vitamin A content, and to spread more easily.

Explore Cause of Ham Bruises

So-called "cherry bruise" of hams is really an internal hemorrhage, according to reports from a University of Minnesota veterinary scientist. It is caused by shackling, that is, suspending the live hog by one hind leg in the first stage of the slaughtering process. It is thought the hemorrhage is caused by straining of the bone structure and connective tissue in the hog's hip joint. A better method of bleeding hogs in a more normal position will result in a tremendous saving to the livestock and meat industry.

Antibiotics Reduce Tobacco Nicotine

The possibility that antibiotics can be used to raise or lower the amount of nicotine in tobacco when applied to the growing plants has been reported by Chas. Pfizer and Company, Inc. There is already evidence that antibiotics can alter the metabolism of growing plants and affect their production of alkaloids. Since nicotine belongs to this class of chemicals, it is anticipated that antibiotics similarly may affect the nicotine content in tobacco.

Stilbestrol Used for Feeders

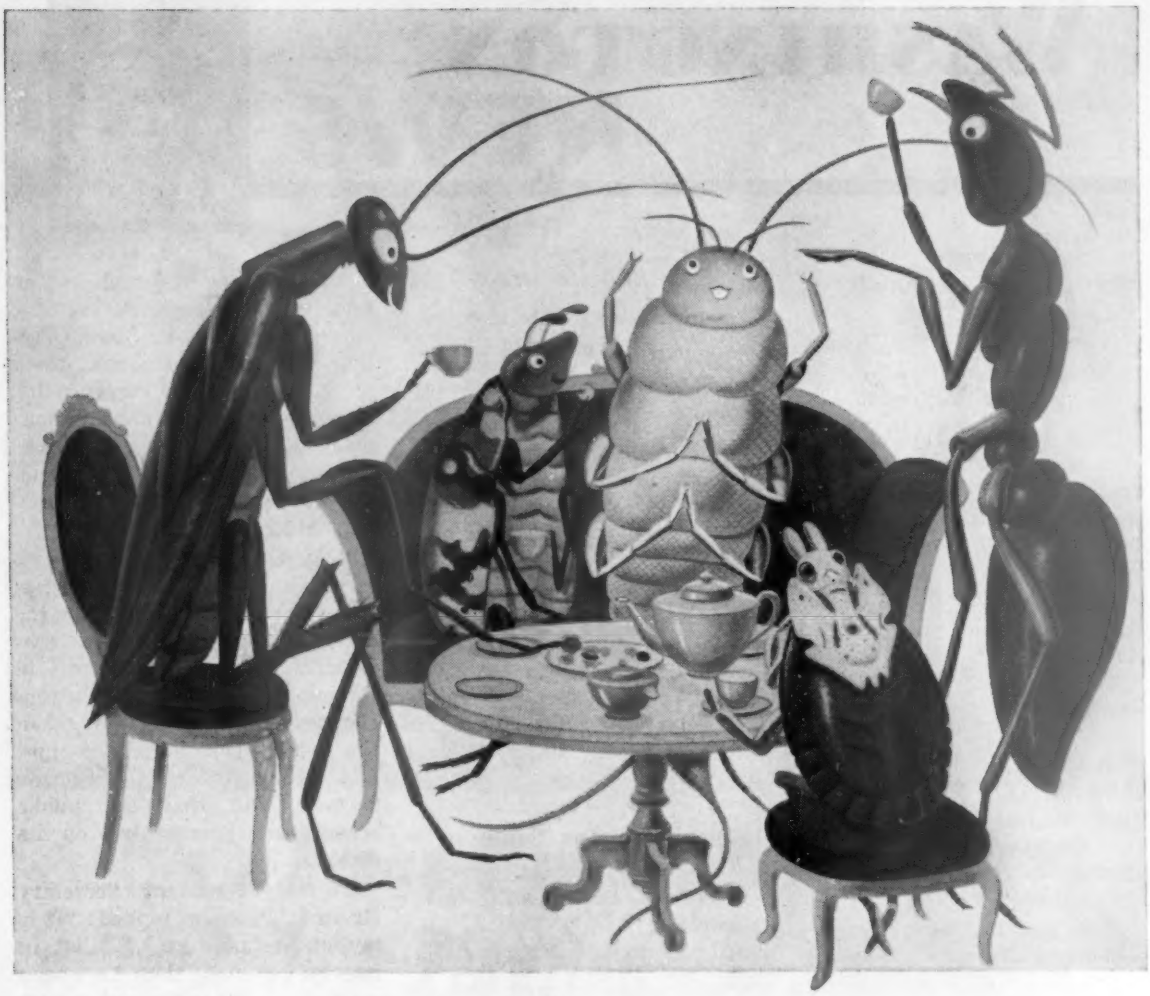
Cattle fed stilbestrol supplement in an early feeding period gain as fast as other cattle, or faster, when they are taken off stilbestrol. That word comes from further tests at Iowa State College on the use of this hormone in cattle feeding. This will permit profitable use of stilbestrol feeding to range and farm producers of feeder cattle. It means that farmers need not hesitate to buy stilbestrol-fed cattle for finish fattening even if they do not expect to use stilbestrol in the finishing feed, or hesitate to use stilbestrol in an early feeding period even though they may not continue the stilbestrol feed in a later period.

Study Mulch Tillage for Corn

Agronomists at Iowa State College have summarized work on leaving crop residues on top of the ground when planting corn. Their studies seem to indicate that: Mulches tend to improve soil structure; this practice reduces soil temperatures, and soil moisture is frequently higher under mulched soil; nitrogen and potassium are often less readily available under mulched tillage than the conventional plowing; applications of fertilizers help overcome lower availability of nitrogen and potassium under mulched tillage and increase corn yields; such tillage influences the distribution of soil microorganisms in the soil, and they are greatest in the area where the mulch is located; and corn stands are lower and weed populations greater under mulch tillage.

Announce New Fly Killer

A revolutionary new fly bait is now being marketed on a nation-wide basis by the Pittsburgh Coke & Chemical Company, Pittsburgh, Pa. The new fly killer, "Dipterex-199," is said to kill both resistant and non-resistant flies in seconds and provide up to 98 percent kills within a few hours after a single application. It has no odor and won't stain. No mixing and no expensive labor and equipment are required to apply the new fly killer. It is a free-flowing granular bait that can be quickly and easily scattered over fly-infested areas.—*End*



How to get rid of these **uninvited guests!**

COCKROACHES, ants, silverfish and other insect free-loaders have a habit of "dropping in" where they're least wanted. When that happens, your customers expect *you* to get rid of them promptly and permanently.

Dieldrin, star performer among newer insecticides, does a fast clean-up job when used in dusts and sprays. It is effective in small quantities, and it creates a barrier against re-infestation that lasts for months. A single application behind baseboards, around pipes, under carpets, in cracks and crevices around shelving kills insects and larvae.

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WASHINGTON NEWS

More Extension Funds?

County agents next fiscal year will be getting about twice as much new help as has been provided in 1954-55.

By Fred Bailey and Jay Richter

Agricultural Services

(Exclusive to Better Farming Methods)

That is, if all continues to go well in appropriations hearings on Capitol Hill. The House has approved in payments to states, for new agents, an extra $5.8 million — the amount requested by Benson & Co.

Clarence Ferguson

That figure would be added to the $7 million extra voted last year. Thus, the total fund for new agents in fiscal '56, starting July 1, would be nearly $13 million.

How has the hiring gone in past months?

A survey, says the Extension Service, indicates results beyond expectations. Officials indicate that the number of new agents can be doubled next year without reduction in quality of service.

With last year's increase in funds, 865 new county agents have been hired to date. Here is the breakdown by states as supplied to Congress by Extension Administrator Clarence Ferguson:

Alabama, 37; Arizona, 4; Arkansas, 23; California, 24; Colorado, 10; Connecticut, 2; Delaware, 1; Florida, 16; Georgia, 45; Idaho, 4; Illinois 22; Indiana, 14; Iowa, 26; Kansas, 22; Kentucky, 43; Louisiana, 23; Maine, 6; Maryland, 7; Massachusetts, 6; Michigan, 25; Minnesota, 22; Mississippi, 45; Missouri, 26; Montana, 10; Nebraska, 21; Nevada, 2; and New Hampshire, 1.

New Jersey, 7; New Mexico, 6; New York, 17; North Carolina, 44; North Dakota, 12; Ohio, 16; Oklahoma, 20; Oregon, 9; Pennsylvania, 17; Rhode Island, 0; South Carolina, 31; South Dakota, 6; Tennessee, 22; Texas, 30; Utah, 4; Vermont, 5; Virginia, 18; Washington, 15; West Virginia, 10; Wisconsin, 27; Wyoming, 2.

Budget Remains Same

Final USDA budget figures won't be known until this summer.

The Senate as yet needs to vote on appropriations, and then get together with the House to iron out any differences.

The Washington budget story for agriculture, meantime, looks to be the same as last year—most of Benson's requests for increases are likely to be granted; his recommended reductions denied. The House restored USDA budget cuts for SCS, ACP soil payments, and school lunches.

The lawmakers, while friendly toward extension witnesses, warned against "robbing Peter to pay Paul." They cited instances of alleged conflict between extension and other agencies. A report from investigators was quoted as follows by House farm appropriations chairman, Rep. Jamie Whitten of Mississippi.

"Undesirable technical conflict was . . . observed between county agents and Federal employees on important conservation matters. In several North and South Carolina counties, for example, there was considerable divergence between technical recommendations made to the same farmers by the extension service and SCS. . . . Such differences are not surprising, though undesirable.

"Another significant development occuring in some states was the increased friction between the extension service and the vocational agricultural instructors in the public schools. . . . The extension service apparently has taken the position that it has the right and responsibility to educate farmers and that the public schools are encroaching on its domain. . . ."

To this Assistant Secretary Ervin L. Peterson replied: "It is my understanding . . . that in isolated instances, there have been conflicts . . . but in the vast majority of the instances . . . people in the States are working together. . . . There is, I think, no secret that as long as there are people engaged in programs impinging upon the same physical premises, you will from time to time have conflicts. . . . I can only say that in our work . . . that those conflicts where they are arising are being resolved."

No Cut in Vo-Ag

Budget for vocational education, including vo-ag work, will be the same next year as this, judging by all the signs in the capital city.

House-approved vocational education budget was almost $31 million, corresponding to the amount approved last year. Apparent feel-

It's a *Brand New* Utility Tractor *with 2-Row Planting and Cultivating*

It's here—the new John Deere "40" Utility Two-Row, the tractor which not only incorporates all the universally accepted features of its companion model, the John Deere "40" Utility, but can also be used for planting—in two rows—corn, cotton, peanuts and similar crops.

The big "plus" advantage of the "40" Two-Row, of course, is the front-end cultivating feature which means that the operator can "keep his eye on the work" and be sure of a cleaner, speedier, thriftier cultivating job. Moreover, the "40" Utility Two-Row is a well-balanced, all-around tractor—a natural for mowing, hauling, and seedbed making, equally at home in orchards, groves, and on sloping fields. Other features include John Deere 3-Point Hitch, Dual Touch-o-matic with Load-and-Depth Control, and variable front and rear wheel spacing.

Naturally, there are certain qualities that this new tractor has in common with all John Deere equipment, including the expert craftsmanship and the consistently high quality of the materials which have gone into its construction.

JOHN DEERE · MOLINE ILLINOIS

QUALITY FARM EQUIPMENT SINCE 1837

'Stilbosol' Digest

by Dr. J. F. Downing

'Stilbosol' vs. Stilbestrol—what's the difference? There's a great deal! 'Stilbosol' is the *feed additive* containing diethylstilbestrol mixed in scientific distribution and is safe to use under usual conditions of handling. *Stilbestrol* is a shortened term for pure diethylstilbestrol—a powerful drug requiring special handling.

Should youth project steers be fed 'Stilbosol'-fortified feeds? Not yet... because there has not been enough experimental work done to determine the over-all advisability of feeding 'Stilbosol' to calves under 600 pounds and for the longer periods which are common in feeding projects. When the experiments now in progress are completed, we'll report the results to you immediately.

Effect of 'Stilbosol' late in fattening period. In three experiments where increased gains due to 'Stilbosol' feeding were compared in the first half of the feeding period with those in the second half, there was about equal stimulation in the two periods. One experiment was a 243-day feeding trial. Longer trials are now in progress.

How does 'Stilbosol' affect carcass? Tests made by Iowa State College indicate two important things: (1) No effect on carcass grade, either for better, or worse. (2) Very sensitive biological tests show no detectable amounts of stilbestrol in tissues of cattle that had been fed the recommended levels.

(If you are interested in having detailed and documented information about 'Stilbosol' progress to date, write Eli Lilly and Company, Agricultural Products Division, Indianapolis 6, Indiana.)

Stilbosol

(Diethylstilbestrol Premix, Lilly)

Lilly

ing of the law-makers is that last year's $5 million increase will keep the wolf from the vo-ed door for at least another year. Of the total for vocational training, vo-ag gets about one-fourth.

Battle Over Drug Testing

The battle over pre-testing of chemicals in food again has been joined on Capitol Hill.

That new legislation to require pre-testing will be passed eventually, if not this year, there is little doubt. Main issue is the *method* the Food & Drug Administration should use to prevent sale of products inadequately tested or unsafe.

Identical bills introduced by Reps. Joseph P. O'Hara (R., Minn.) and J. Percy Priest (D., Tenn.), and a third by Rep. James J. Delaney (D., N. Y.) would all require pre-testing of chemicals introduced into food products by processors.

In the Priest-O'Hara bills pretesting procedures are along lines followed to establish tolerances for pesticides used on food crops in the field. The legislation establishes a committee of the National Research Council to review Food & Drug opinion.

Testing procedure is "tougher" in the Delaney bill. A chemical is required to serve a "useful purpose" to consumers; the legislation covers chemicals already in use, as well as new substances, if any qustion is raised as to safety.

Russian Farmers Coming

It's a tricky business to line things up for a visit to this country of Russian farmers, but the U. S. government has now approved the idea.

Delay has been due to the State Department's urgent wish to get off the hook by lining up private farm groups to sponsor the Russian tour.

Idea of State officials is that if "incidents" occur while the Russians are in this country, it will be better for private citizens to take any subsequent propaganda rap from the Kremlin in Moscow. Publicly, the State Department has attributed delay in formal announcement to its desire to insure "an interesting tour."

It has not yet been arranged, but an American delegation of farmers is almost certain to pay the Russians a return visit. The big problem will be selecting the Americans to go.—*End*

★

IDEAS that WORK

A Wooden Head

This is a model head that can be used in the classroom to demonstrate some of the techniques used with either beef or dairy cattle when the actual animal is not at hand, or to prepare a class for a field trip. This device can be used to demonstrate such things as proper use of halters, dehorning, ear tattooing, ear notching, horn weighting, horn polishing, and putting a ring in a bull's nose.

It is very simple to construct and can be made from scraps. A student should be able to build one in just a few periods. The one in the picture has a piece of redwood fence post for the center of the face, part of an old ironing board for the sides of the head, a three foot piece of one by six for the neck, raw hide for the ears, and different lengths of a broken shovel handle, turned in a lathe, make up the horns.

The horns are held in place by one-fourth inch dowels that can be easily cut off to demonstrate dehorning methods. Different sizes of horns may be slipped on the dowels to illustrate different stages of growth.—*Paul R. Davies, California State Polytechnic College, San Luis Obispo, Calif.*

Do you have an idea that works? Better Farming Methods will pay a minimum of $5 for accepted ideas or teaching techniques that you have used successfully in YOUR work with FFA, 4-H, or farmers.

TOXAPHENE News Digest

UP-TO-DATE INFORMATION ABOUT TOXAPHENE AS AN AGRICULTURAL INSECTICIDE

PUBLISHED PERIODICALLY BY HERCULES POWDER COMPANY MAY 1955

How One Cotton Farmer Grew 4 Bales Per Acre

Arizona has the enviable statewide average of slightly more than 1,000 pounds of lint cotton per acre. In the Yuma Valley, farmers have boosted their average cotton production to two and a half bales per acre; and Sammy Dick, who farms in this fertile valley, produced 158 bales from only 38½ acres!

One key to a four-bale-plus crop, says Mr. Dick, is the adequate use of agricultural chemicals. Acting on his theory that a farmer has to spend money to make money, Mr. Dick resolved to go the limit and use all of the cultural practices deemed best for his area.

He planted early, and at chopping time sidedressed deeply with a complete fertilizer recommended for his land at a rate of 350 pounds per acre, and sidedressed at lay-by time at the rate of 200 pounds per acre. In early August, he fertilized by airplane, 100 pounds to the acre. The reaction was so favorable that he applied another 100 pounds per acre by water application in his late-August irrigation.

Mr. Dick dusted early for thrips control, and made eight insecticide applications during the season. His land was surrounded by alfalfa, and with each cutting of the alfalfa, Lygus bugs began moving into his cotton. However, dusting with 15-5-40, containing 15 per cent toxaphene, protected his crop. All his other insecticide applications were with the same material except one dusting with DDT and sulfur for bollworms. In addition to all this care he devoted to his cotton, Mr. Dick irrigated as often as the crop needed it.

Don McCain (right) fieldman for Arizona Fertilizers Inc., discusses prospects for the 1955 cotton season with Sammy Dick. Last season, Mr. Dick produced an average of four bales per acre on his farm in Arizona's Yuma Valley.

MORE INFORMATION ON QUICK MOSQUITO CONTROL

The story we published in the March issue, "Better Days Coming For Mosquito-Plagued Areas," brought so many inquiries that we'll attempt to answer a few of the questions here.

Many communities, particularly in Florida, are now using a knockdown agent in combination with a residual insecticide. The knockdown agent goes to work immediately and keeps mosquitoes in the mist or fog long enough for the effective, but slower acting, residual poisons to do their work.

In tests, and in practical demonstrations, Thanite® was preferred as the knockdown agent because of its extremely low cost, its comparative safety, and pleasant piney odor. Thanite is also said to be more effective per unit than other knockdown agents, and is highly resistant to breakdown in fogging machines, where temperatures may reach 1100 degrees F.

In addition to its quick knockdown, Thanite is itself an effective toxicant against a great number of common insect pests. For detailed information, write to the editors of the Toxaphene News Digest.

Growers should familiarize themselves with the tolerances of all pesticide materials. Residue-removal procedures and spraying or dusting schedules should be arranged to eliminate the possibility of residues exceeding those permitted by law. Information on tolerances of all pesticides is available through the County Agent or other agricultural authorities.

Copyright 1955, by Hercules Powder Company

North Carolina Farmer Gets Higher Yields . . . BETTER QUALITY COTTON THROUGH INSECT CONTROL

Halifax County, in the northeastern part of North Carolina, is famous from both an agricultural and historical standpoint because its rich soil, which attracted early settlers, makes it one of the finest farming areas in the world today.,

A leading figure from Halifax County is B. B. Everett of Woodstock Farm, Palmyra, N. C. On his 5,200 acres of choice land, Mr. Everett grows bumper crops of cotton, peanuts, and corn, as well as fine Hampshire hogs and Hereford cattle. Since he moved to Woodstock Farm in 1913, Mr. Everett has seen tremendous changes in agriculture—and has been quick to adopt the latest scientific practices.

Boll weevils have for many years taken a heavy toll of cotton production in North Carolina, and Mr. Everett once had his yield drop to 800 pounds of seed cotton per acre. A director of the National Cotton Council for the past 12 years, he was alert to the new chemical controls made available to cotton farmers after World War II, and was one of the first to urge their use. Today his yields are exceptionally high for his area.

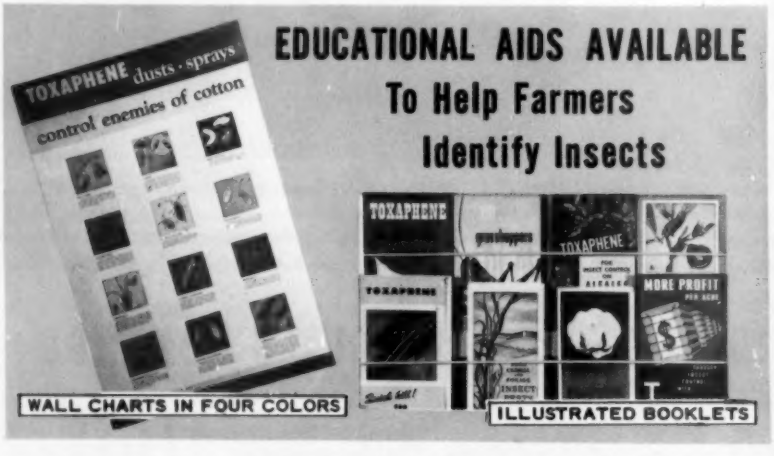
B. B. Everett (left) veteran farmer of Palmyra, North Carolina, tells Hercules representative Bill Burnside how toxaphene insecticides protected his cotton from boll weevils.

Mr. Everett and his sons, Ben B., Jr., and Fate Baker Everett, keep a close watch every year for boll weevil infestations. In 1954, for instance, they began poisoning for weevils the 10th of June, and made toxaphene applications regularly every seven days. "We kept weevil populations below five per cent up until the general migration time, which was about the 15th of August," Mr. Everett stated.

As operator of a public gin, Mr. Everett has an opportunity to observe the quality of cotton produced by many of his neighbors. Some farmers stopped poisoning too early, and their cotton had a brown stain as the result of boll weevil punctures. But those who continued to apply insecticide later in the season—until bolls became too hard for weevils to puncture—brought in higher quality cotton without the brown stain.

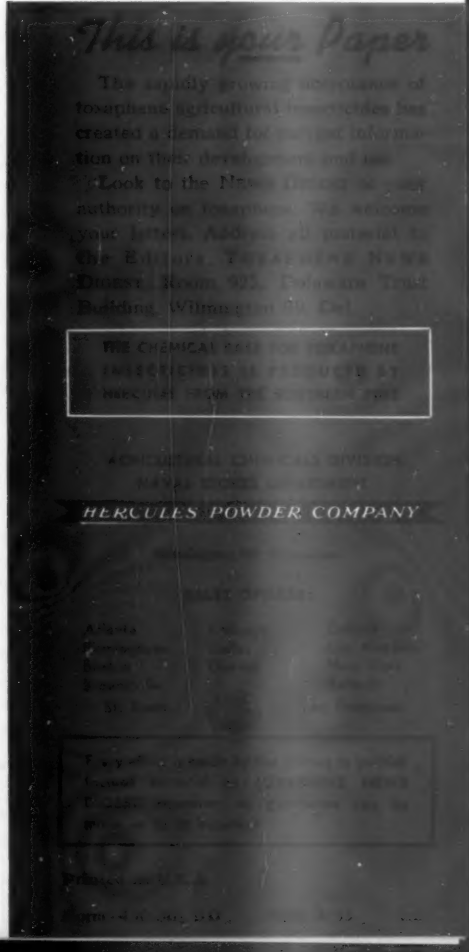
In 1955, Mr. Everett will rely on toxaphene insecticides for cotton insect control, as he has done for the past three seasons. "Toxaphene is not objectionable to apply," he says, ". . . and we have made better yields since using toxaphene formulations."

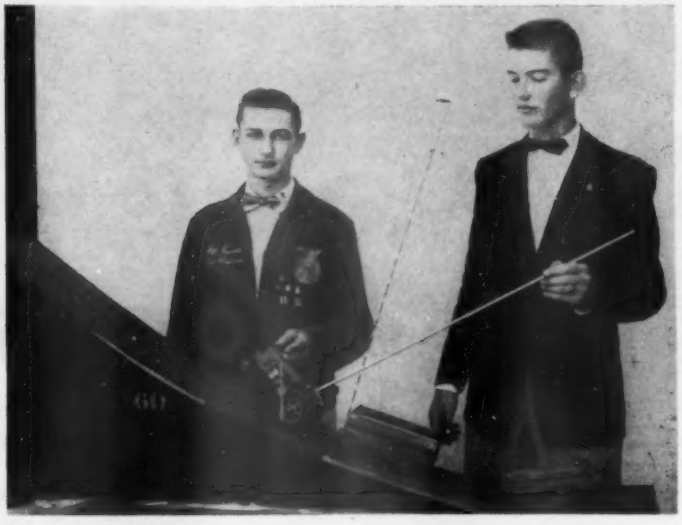
EDUCATIONAL AIDS AVAILABLE To Help Farmers Identify Insects



To promote insect pest control on a local level, the makers of toxaphene have printed charts and booklets illustrating in full color some of the most common pests faced by the farmer. Readers of the Toxaphene News Digest may order them through Hercules Powder Company offices listed in this paper.

One of the most popular is a wall chart illustrating 12 of the most destructive cotton insects. The charts are widely used in stores, gins, schools, and county agent offices. A similar chart illustrating seed, cereal, and forage insect pests is just off the press. Small, pocket-size folders containing color illustrations and descriptions of a number of insect pests are also available.





UP, UP, AND OVER . . .
With models, these FFA boys demonstrate tractor safety.

Model with a Motor

demonstrates tractor safety

● SAFE PRACTICES in operating a tractor have been demonstrated with a small scale model plastic tractor by members of the Hope, Kans., Chapter of Future Farmers of America. This group has presented demonstrations on TV and before the Kansas Vo-Ag Teachers' Conference, as well as many local civic and community groups.

The fascinating feature of this demonstration is developed by motorizing a small plastic model tractor. The students who put on the demonstration have also gained first hand knowledge of the risks involved in tractor operation.

Model Has Motor

FFA Chapter members under the supervision of W. A. Reynolds, chapter adviser, have installed a one and one-half volt to three volt DC motor in the tractor. The motor was secured from a hobby shop at the cost of $1.95. The gear assembly in the tractor was made from parts out of a Sessions clock. Power to operate the motor is furnished by two one and one-half V dry cell batteries.

The tractor is operated by a remote control switch and the operator can move the tractor forward, in reverse, or stop it. Speed can be increased by adding one or more dry cell batteries. This increases the voltage and the tractor is operated at this increased speed only for a very limited time.

Tractor safety is demonstrated by putting the tractor through many of the same hazards that occur when operating a tractor on the farm.

A variable incline plane is used to demonstrate the effect the shift of gravity has upon the stability of the tractor. The tractor is run up the incline with and without wheel weights. Various type loads such as the wagon or manure spreader are attached to the tractor. The tractor will always upset when it meets a certain point on the incline, depending upon the type of load and whether or not it is equipped with wheel weights.

Two holes have been chiseled out on the demonstration platform to fit the rear wheels of the tractor. When the tractor is placed in these holes, it is impossible for it to climb out. After the wheels have spun for awhile, the tractor motor is stopped and a small post is fastened to one of the wheels. When the motor is started again, the wheels lock and the tractor reels over backward, demonstrating what happens when the farm tractor becomes stuck in a mud hole on the farm.

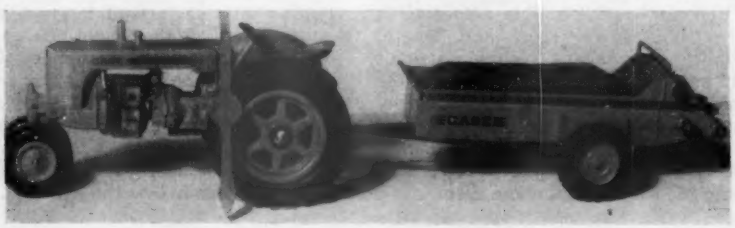
Tractor Tips Over

Another hazard is demonstrated by placing a small block of wood on the floor in line with the rear wheel of the tractor. When the tractor runs into this at a rather high speed, it turns over on its side. This illustrates how a young man was killed when his tractor tipped over after hitting a bale of hay in the field.

Other farm tools such as a manure loader and harrow have been designed to operate with this tractor. Safety practices to be followed are pointed out by operating the tractor with each of these attached.

Chapter members estimate that the cost of material to build a scale model tractor will not exceed $10. The tractor and implements used in this demonstration were furnished through the courtesy of a local dealer. Explicit plans have been developed by the Chapter Adviser and can be obtained by contacting W. A. Reynolds, vo-ag teacher, Hope, Kans. — *Harold L. Kugler, Kansas State College.*

A portion of the frame of the tractor is cut away to make room for the one and one-half volt DC motor. The motor is held in place by fusing the case of the motor with the plastic of the tractor.



Scale model plastic implements are pulled behind the tractor to demonstrate how a load influences the stability of the tractor. The large arrow by the rear wheel of the tractor is on a pivot. When the tractor moves up the incline, the tip of the arrow moves toward the rear wheel axle. The tractor turns over when the arrow tip comes in line with the rear axle.

288 times around the world ties

You and thousands of other U.S. farmers will bale over 49 million tons of hay this year. To do the job will take enough baler twine to go around the world 288 times!

The twine you use had better be good. With a hundred and one other things to think about at haying and harvest time, it pays you to get the best twine that money can buy—strong, smooth, uniform twine made in the United States.

The best news about U. S. twine is in here

Because of improved production methods, the U.S. Cordage Industry has been able to reduce the price of baler twine for three years in a row. You pay about 18 per cent less for it this year than you paid in 1954. You pay about 50 per cent less than you did three years ago.

While the price has been going down, quality has constantly been improved. You have always got the best that modern manufacturing skills can produce—top performance, top strength and top dollar value. You always will.

The twine with the 325-pound reputation

It's your hay, but it's our reputation. That's why we make baler twine with a tensile strength of 325 pounds. With a bale of twine made by U.S. manufacturers, you can bale 14.6 tons of hay. You get the strength that holds your bales under all conditions. With U.S. twine you have no problem if your hay is wet and runs extra heavy. You have no problem in handling, stacking, and storing. You reduce twine consumption and cost per ton of hay. You are assured maximum efficiency in the field. And the greater strength of U.S. twine permits you to pack more hay into every bale. This lets you make maximum use of every foot of storage space.

All American mills have one and the same basic standard—to make twine of the strength and quality to do the best possible job for you at lowest cost.

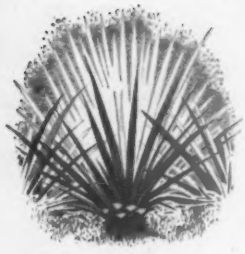
The man you never see helps you bale hay

What this expert does here helps you bale hay. This is the first step in making your twine—the inspecting and grading of the raw vegetable fiber according to strength, texture, color and length. Quality controls and techniques don't end here. They just start. All along the line, U.S. manufacturers have incorporated every technological improvement in making twine. Equipment and mills are as modern as capital expenditures of some $35,000,000 can make them.

Result? You get twine for the lowest possible price consistent with the best performance in the field. You get baler twine that's engineered for high-speed baling. You bale the weight you want—50, 60, 70-pound bales or more. U.S.-made baler twine has the highest tensile strength and is evenly spun and wound for running through the knotter easily. It ties bales without a stop. Won't break, jam or snarl. It gives you full measure—runs free to the last foot.

a lot of hay!

Anybody that bales hay should know this crop



It's the sisalana plant—the crop you use after its long, strong fibers have been converted into baler twine. U.S. manufacturers have the pick of all the different fiber crops of the world. Of them all, the U.S. Cordage Industry selects sisalana as being the very best for this purpose.

Some foreign twine mills make a twine from a substitute fiber. It's altogether a different plant. It's cheaper per pound when you buy it. But its cost goes up fast—in terms of misses, breakage, uneven feeding, storage troubles, rehandling headaches.

Most farmers in the United States have learned out in the field that the best guide to the best twine are just two terms—"made in U.S.A." and "genuine sisalana". Behind these terms stands the U.S. Cordage Industry.

We can't grow it here

Neither our soil nor our climate are suited to the growing of sisalana. It flourishes only in the far corners of the earth. But its importance to us is such that our Government classifies it as a Strategic Material. Because sisalana is essential, it is stockpiled here in the U.S. by the Government with the cooperation of the U.S. Cordage Industry. Substitute fiber, such as henequen, rates no place on the strategic list. Since sisalana is a perishable vegetable fiber and can be stored just for so long, stocks are rotated so that the farmer is protected at all times with regard to both plentiful supply and high quality.

The latch string is always out

You're welcome behind the scenes of any of our mills any time. The U. S. Cordage Industry is proud of its record as one of America's oldest and most progressive industries. We invite you to visit any of our mills to see how skilled American workers and modern equipment work together to produce the world's best harvest twine values.

Baler twine—in a book and a movie!

An illustrated booklet, now on the press, will give you the complete twine story. Write for as many copies as you want to Cordage Institute, 350 Madison Ave., New York, N. Y.

A fifteen-minute motion picture in color tells the story of baler twine from the time sisalana is harvested until the U.S.-made twine helps bring in the hay harvest on American farms. It is available for showings at Farm Bureau, Grange and other meetings. Please write Cordage Institute, 350 Madison Avenue, New York, N. Y. Also write for as many reprints of this ad as you want.

CORDAGE INSTITUTE *New York, N. Y.*

For good educational . . .

TV programs

1. Plan well.
2. Come to the point.
3. Use timely subjects.
4. Keep programs simple.
5. Polish your skills.

By Dale R. Williams
Iowa State College

NEW PEOPLE . . .
TV reaches persons that extension has never reached before.

● EVERY MONTH the 300 boys and girls in 16 agricultural 4-H clubs in Iowa's Plymouth and Cherokee counties see, hear, and discuss a 30-minute subject matter program presented to each club meeting by county extension workers.

Consider some other facts in this ambitious program of 4-H education. The club members of these two counties meet on the same date, at the same time and still have their small-group, individual club meetings. Yet there are just three extension men who work with 4-H in the two counties—County Extension Director Arlie Pierson and County Extension Youth Assistant Harlan Stratton, Plymouth county and Forrest J. Kohrt, Cherokee county.

How do they do it? By television, of course.

See—then Discuss

On the first Wednesday evening of the month, the members of the agricultural 4-H clubs of the two counties meet in front of television sets. At 7:30 p.m., the set goes on, tuned to KTIV, channel 4, Sioux City. For 30 minutes the young people and their leaders watch the subject matter presentation. At 8 p.m., the set goes off. Then the leader—with discussion outlines provided him in advance—starts the discussion.

Now, let's ask you three questions:

1. Would your 4-H program be more successful and of greater benefit to members if you could give each club a half-hour subject matter lesson every month?

2. If you answer "yes," how much time, travel and other expense would it take for you to be on hand for every meeting? Figure it out roughly.

3. Could television do something for your 4-H program?; could it do something for your other programs?

TV Is New Tool

This two-county 4-H program is just one more example that has joined the growing list of uses for television in extension work. This example, plus the others you hear or read about, adds mounting evidence that television is a promising new tool for extension education.

That's what it is—a new tool in the extension information kit. Whether it's used—whether it's used effectively—depends on the individual extension worker.

It's a new tool, yet the way in which it is used is very similar to what extension people have done for years. You use these same skills in everyday extension teaching—your ability to talk, to show, to explain, and to plan.

A Teacher, Not Actor

At first, television will seem too difficult. But it will get easier as you go along. As an extension teacher on television, you're not expected to be a Hollywood actor. You are expected to present useful, practical information in an understandable way—entertaining, perhaps—to people who are interested in what you have to say.

The time you spend in planning a television program should be no more than you need in planning a *good* extension meeting. In television, though, your time is limited. That means the material has to be well organized and to the point. You know it's harder to work up a 15-minute talk than one that lasts 30 minutes. You know, too, that the 15-minute one is usually more effective.

Come to the Point

A television program has to be to the point. You have to use your imagination in *what* you show and *how* you show visual things to your viewers. You can't grab a handful of "visuals" and be sure the program will be successful.

Your television program has to have timely subjects, presented in such a way that people want to watch. You need to know your viewers and use your imagination to catch their interest in your subject. Open your program with an interest-getter that tells the viewer what you're going to

YOURS... *these 2 new leaflets on*

Disease Prevention!

Help Prevent Disease Losses
CRD • BLUE COMB • NONSPECIFIC ENTERITIS • with good feeds containing "HIGH LEVELS" of
AUREOMYCIN
CHLORTETRACYCLINE
Help Prevent "Scours"
Caused by bacteria
WITH A GOOD RATION CONTAINING ADEQUATE LEVELS OF...
AUREOMYCIN
CHLORTETRACYCLINE

VO-AG TEACHERS...EXTENSION SPECIALISTS!

Here, in two fact-filled leaflets is the latest information on today's best way to help prevent certain diseases in livestock and poultry—grow *healthier* pigs, chickens and turkeys *faster!* There's a generous supply of both leaflets ready to be sent to you upon request. Just let us know how many you wish.

Cyanamid Fine Chemicals

AMERICAN Cyanamid COMPANY

Fine Chemicals Division

30 Rockefeller Plaza New York 20, N. Y.

HOW TWO TRUCKS THAT PASS IN THE NIGHT

Raise Living Standards On Every Farm!

One truck (maybe it's your own!) is carrying raw materials grown on the farm to a nearby processing plant.

The other truck carries TV sets, automatic washers, freezers, sewing machines, electric toasters or perhaps canned goods and other processed foods. It's on its way to retail stores in a farm community. And all these items will be bought by farmers as part of their rightful share of American abundance.

Both these trucks spell prosperity and better living for the farmer and for all America. Farm trucks and intercity trucks, in a working partnership, are helping sell farm products over a wider area than ever before. Intercity trucks can in every sense of the word be considered *farm* trucks. They have *made* the market bigger for farm products.

Truly America's farmers, like the rest of the nation, live and *live better* by truck!

AMERICAN TRUCKING INDUSTRY

ATA

AMERICAN TRUCKING ASSOCIATIONS, INC.,
WASHINGTON 6, D. C.

If You've Got It . . . A Truck Brought It!

For the sixth straight year, Pfister Associated Growers, Inc., Aurora, Ill., has received a certificate of award for their contribution in promoting the Future Farmer Program in the state of Illinois. Larry Royer, Illinois state FFA president, is shown presenting the certificate to John P. Case, president and general manager. On the right is H. R. Damisch, Illinois vo-ag supervisor.

show and say. Be sure they know from the first minute what they're going to miss if they flip to another channel to be entertained at that particular time.

Cut Out the Frills

The program must be simple. Agricultural telecasting need not be complicated or expensive. But it should be simple. The effective program comes after you've taken the time to cut out the frills.

If you have the chance to add television to your methods of putting information before your people, think the prospects through. It can give you things that you can't get with other methods.

Television reaches audiences many times greater than you can reach with meetings. A noontime news and farm feature program telecast by Iowa State College has about 35,000 viewers every day. Nighttime programs pull audiences of 90,000 plus, consistently.

Reaches Remote Areas

Television reaches persons whom extension has never been able to reach before. Some Iowa county extension directors tell us that extension television programs have brought people to their offices who had never been inside the doors before.

Television—as a tool of communicating—gives you certain advantages you don't get in other teaching methods. The television camera gives every person the front-row seat. It will show close-up detail that even people in the front rows at meetings can't see. And it's a personal medium. It's like having thousands of people in your office—one at a time. It lets you talk personally with each of them. Of course, they can't ask questions,

but your planning can give the answers to those questions that would come up in a two-way conversation.

Don't be fooled. Experience helps in television. Some of your skills will need some polishing. There are guideposts to learn and follow that will mean success or failure. But don't be afraid of this tool. If you get the chance to use it, be prepared, be yourself and you'll be a success.—*End*

★

Honor Texas Teacher

Wade Bailey was a leader. The community recognized his leadership, and organized to support his FFA and vo-ag program.

So, to show their appreciation for his untiring efforts in their behalf, the community honored him and his work. At the annual Chamber of Commerce

Wade Bailey, vo-ag teacher, left, receives honor plaque from a representative of the Chamber of Commerce.

Banquet, they gave him a plaque of recognition and named him "Citizen of the Year."

Bailey is vo-ag teacher at Electra High School, Texas. Seven years ago he started a new vo-ag department in this community and organized the FFA chapter. He has worked closely with the Chamber of Commerce and now they have in operation a pig circle of four registered sows, a poultry improvement program, and a dairy circle of four head.

He also has an active adult farmer organization.

★

Tankage as Hog Feed

In recent tests at the University of Missouri, tankage alone and tankage fed in combination with other protein sources proved to be one of the most efficient supplements for growing-fattening hogs.

In two experiments, tankage was more effective than soybean oil meal in increasing the efficiency of the basal ration. Tests compared tankage to both soybean and linseed oil meal. Linseed oil meal gave slow and inefficient gains.

Here are the winners of the 1954 Efficient Corn Growing Program conducted by the Agronomy Section of Spencer Chemical Company. The eleven winners and their Vo-Ag teachers were honored in Kansas City.

Efficient Corn Growing Program Helps Youth Learn By Doing

Vo-Ag students learn modern practices in program conducted by Spencer Chemical Company

The Efficient Corn Growing Program is one of the many ways the Agronomy Section of Spencer Chemical Company is cooperating with Vo-Ag teachers. Eleven young corn growers received awards in Kansas City, Mo., recently for their outstanding performance in the 1954 program. This year's program is being projected from three to nine states.

Spencer agronomists have not designed the program to promote maximum yields. Instead, the object is to provide a "learning-by-doing" activity to promote use of the most up-to-date corn production practices.

Some of the winners of the '54 awards—because of drouth—actually made only a 60-bushel yield, but they made the best use of the proven practices and showed the most improvement over their usual program. Some of the yields were high ones, however. Howard Grimm of Earlville, Ill., raised 170 bushels per acre, 35 more than on his "usual practice" plot. Another cooperator boosted his yield from 133 to 159 bushels.

Factors used to evaluate the participant's program were: (1) Yield; (2) Management practices followed to conserve soil and water; (3) Adaptability of seed; (4) Adjustment of stand to fertility level; (5) Adequacy of fertilization program; (6) Practices adopted to control weeds, insects and diseases; (7) Profitableness of production; (8) The participant's appraisal of his program.

A booklet, "Five Tested Steps to Maximum-profit Corn," prepared by Spencer as a teaching aid, is available, in quantity, to Vo-Ag teachers to assist in their work. A color slide presentation, available on request, supplements the booklet and program.

In the 1955 program three winners will be selected from each of nine states. As last year, Vo-Ag teachers will participate in the awards. In addition to Iowa, Illinois and Minnesota, the states entered in the 1954 program, participants will be entered from Nebraska, Missouri, Indiana, Wisconsin, Tennessee and South Carolina.

If you would like further information about the 1955 program, write: Agronomy Section, Spencer Chemical Company, Dwight Bldg., Kansas City 5, Mo.

How Do Agents Use College Specialists?

THE LAST COUNTY agent field report appeared in the December issue of Better Farming Methods on the subject of raising 4-H funds.

Once again, we asked 10 county agents located throughout the United States to submit their comments on this month's question: *How should county agents use their state college subject matter specialist?* We hope that the information and methods suggested in this report will be of some help to you.

County agents who contributed to this month's report were: W. L. Bryant, South Carolina; D. W. Ingle, Kansas; Charles L. Eastman, Maine; M. W. Edwards, Mississippi; W. F. Spivey, Arkansas; J. J. Inskeep, Oregon; Donald Lee, Illinois; and G. J. Kunau, Minnesota.

☛ *Do you rely on the state specialist to keep you posted on developments in the rest of the state, region, and nation?*

All eight said "yes." Comments: "We get much valuable information direct from the experiment stations and also from many of the specialized farm magazines and papers." To a large degree . . . however, I believe it is important to rely on state specialists for recommendations best suited for our particular state or area of the state." "I rely on the specialist for all subject matter pertaining to research at the college. I check information received from other sources that seems to have practical application in my county with him in that particular field before I recommend it as a practice in the county."

☛ *Do you seek their help in setting up county projects?*

Again, all "yes." Comments: "We use . . . the subject matter specialist in establishing method and result demonstrations on new developments in the field of agriculture." "Under certain conditions, but seldom done. However, subject matter furnished by specialists helps in setting up individual county projects."

☛ *Do you call specialists in to the county on tough, individual farm problems?*

Three "yes" and five "sometimes." Comments: "The privilege should not be abused. He should not be made a choreboy." "Only when the problem is common to many farms in the county." "I call on them by letter or phone on unusual problems." "Efforts are made to use the specialists in group meetings, at result demonstrations, in order to help the largest number of farmers."

☛ *Do you travel with the specialist when he is in the county to try to get in as many farm visits as possible?*

Half the agents definitely said "yes." Comments: "Generally used for meetings and not farm visits." "Specialists should not work in the county unless accompanied by the agent, except in emergencies." "We do not bring specialists into the county just to make farm visits." "Specialist visits in our county are mostly for planned meetings to give first hand information to interested people in attendance."

☛ *Do you have them appear on your radio or TV program when they are in the county?*

Three said "no," two "yes," and three "occasionally." Comments: "We try to make a radio tape recording with the specialist while in the county. It's a good way to expand the meeting audience." "We use them on radio and TV programs on problems that are timely and related to their field of work."

☛ *Do you seek their help in preparing letters to farmers dealing with specialized subjects?*

One said "yes," three "no," four "occasionally." Comment: "We use the subject matter material that the specialist supplies in composing letters to the farmers on specialized subjects."

☛ *Do you use them extensively at farm meetings?*

Four said "yes," one "no," and three "used them sometimes." Comments: "We try to use their assistance in farm meetings that deal specifically with their field of work." "We use them mostly in trade areas, county-wide meetings, and field demonstrations."

☛ *Are you offended if a state specialist may have been in your county without informing you?*

One "definitely yes" while the rest said "no." Comments: "I am not offended but I do feel that he should show courtesy to the county agent by at least calling him. I think this contact is necessary with the county agent to coordinate information." "I do feel that agents and specialists should have an understanding as to the role each is playing in carrying out the extension program. In general, the county extension office is set up to serve the farmers in that county and the state specialist staff services the county staff . . . If the specialist is assuming the county agents role . . . both county and state programs are weakened."

☛ *Many state specialists are requested to do judging at small county fairs. Is this a waste of his time and talents?*

Evenly divided, four "yes" and four "no." Comments: "County agent from adjoining county could do much better job." "We use farm men and women and commercial leaders who have had special training in this field." "Specialists should devote a certain percent of their time for this judging. It is helpful to the specialists in that it keeps their 'feet on the ground' and close to farm people." "When judging exhibits at any show, particularly for young people, it is important the best qualified judges should always be used. Judging is not a waste of

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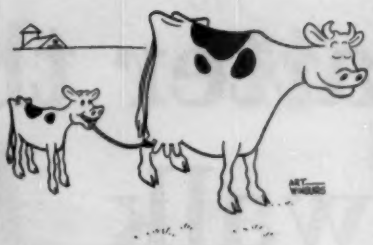

specialist's time. (He) can be a help in conducting training schools to give agents and other local people who are called on to judge an opportunity to sharpen and check their own work."

☛ *In what way could state specialists be of greater help to you than they are now?*

Comments: "A few of our specialists have been rendering an excellent service by sending periodic reports on new research in their particular field. This could be expanded . . . Small district or group meetings of agents could be conducted by specialists to train agents to deal with problems peculiar to the area." "Prepare more materials to be used by the county extension personnel to interpret the agricultural college research results to the local people." "By giving more help in suggesting new projects . . . more visual aids, and personal help with subject matter at meetings in the county." "We need more bulletins and circulars . . . a great many of our publications are out of date and should be revised. There is also a need for development of more teaching aids."

☛ *Are state specialists a nuisance to you at times?*

Three said "sometimes" while five said "no." Comments: ". . . I would not put any of them in the nuisance class. Those who do badly with farm audiences are not invited back." "Be very frank with them if you feel their particular program that they want pushed is of no value in your county." "Yes. When appointment is made, be on time. Certain specialists send too much worthless literature, time wasted in writing and reading." "Attaching a non-requested specialist for a requested specialist so he can secure training in the field."

Need Research Information

In addition to specific comments on the above questions, county agents had other opinions regarding this question.

This one states: "Specialists should furnish more specific and planned demonstration material. Give us more timely information on latest developments of research. When visiting in the county some specialists could spend more time with the county agents."

Field time is important, too, according to this county agent. "Extension specialists need to spend some time participating in the field of their specialty. Information must be practical and in farm language."

Easy on the Records

And here is some pertinent advice: "Specialists who demand detailed records on demonstration results should take time to develop the records themselves. It is easy to overload on record keeping on the county level."

Cooperation is important, too: "Specialists and county agents have a dual role each playing an important part on a team designed to keep farm people up-to-date. The agent depends on the specialist to keep him abreast with new developments and recommendations in his field.

"It is the agents responsibility in turn to bring this 'down to earth' touch back to the specialist keeping the specialist informed regarding on-the-farm experiences, problem developments and farmer attitudes. Together they make an effective team in our broad field of extension education."

Consider the Specialist

Finally, these good suggestions from this county agent: "I think the primary function of the specialist is to furnish subject matter information to the county worker. He should select and boil down up-to-date information in his field. This means that he should have adequate time in the office for this purpose. It also obligates county workers to read such information. The county worker should not call on the specialist to spend time in the county giving information which he (the county extension worker) has not taken time to gain for himself. Specialists should not be used as drawing cards to gain attendance at meetings. Specialists should be primarily teachers to county workers.

"Ineffectiveness of specialists can often be traced to county workers who run the specialists ragged doing chores. Very few county workers are actually lazy. We all know that, but many of us could afford time out to read what the specialist has to offer. In many instances the county worker can absorb enough information from one meeting to master the subject matter and relieve the specialist of making a series of meetings.

"Let's give our harassed specialist a break."—*End*

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Irrigation Timetable

For best results tell your farmers . . .

Table 1. Effect of time of irrigation on the yield of potatoes and onions.

3-year averages	Irrigated as soon as soil moisture dropped to 50% of available	25% of available	5% of available	not irrigated
Total growing season rainfall (inches)	10.30	10.30	10.30	10.30
Total irrigation (inches)	8.45	7.12	4.77	0
Water available (inches per week)	1.32	1.22	1.07	.72
Crop yields:				
Onions (2-year average bushels per acre)	913	770	690	520
Potatoes (3-year average bushels per acre)	682	601	559	474

Irrigate to Make a Crop– not to save it

By Arthur J. Pratt
Cornell University

● NOW-A-DAYS WE irrigate to make a crop rather than to save it. Because of this idea many experimenters have changed from tests on whether or not irrigation pays, to tests on how and when to irrigate.

Many tests in the humid eastern two-thirds of the country have shown that irrigation can be made to pay in perhaps four years out of five. Some years a good job of irrigation will pay for a new system in a single season.

Some growers were getting little or no returns for irrigation in years when the weather was such that irrigation should have paid well. Sometimes a grower would get big yield increases from the extra water and his neighbor would get little or no increase. In some irrigation experiments, the extra water was not increasing yields every time.

Experimenters decided to try to find out why crops gave such excellent responses to water sometimes and not at other times when the weather was still obviously too dry.

Table 2. Seasonal rainfall at Ithaca from potato come-up to vine maturity.

1952	1953	1954
June 9 - 0.55	June 6 - 0.60	June 4 - 0.10
18 - 0.15	13 - 1.51	6 - 0.18
29 - 0.68	21 - 0.25	13 - 1.29
		22 - 1.12
		26 - 0.64
July 4 - 0.22	July 2 - 0.25	July 2 - 0.48
9 - 1.15	3 - 0.18	15 - 0.43
10 - 2.80	13 - 0.66	20 - 0.13
21 - 1.22	19 - 1.03	25 - 0.17
28 - 0.24	23 - 0.06	29 - 0.12
	26 - 0.57	
	29 - 0.47	
Aug. 5 - 1.02	Aug. 2 - 0.07	Aug. 3 - 0.71
10 - 0.35	4 - 0.25	4 - 0.55
16 - 0.78	7 - 0.22	11 - 0.15
21 - 0.30	9 - 2.40	14 - 0.20
	16 - 0.08	19 - 0.05
		24 - 0.17
		29 - 0.21
		31 - 2.80
Sept. 2 - 1.10		

Use Water Properly

Certain things were obvious. Factors other than water must not be limiting if irrigation is to pay for the time and water used. The crop must have plenty of fertilizer. The land should be properly fitted and planted. There should be a good stand. The weeds must be controlled, and the ground must not be worked when wet so that the soil will be compacted and thus interfere with the free entry of water and air.

Beyond all of these things there was still a problem of whether enough water was being used and whether it was put on at the right time.

Early irrigation experiments in the East were set up to have a given amount of water added each week, regardless of rains. In at least one case, as much as two inches of water was added every week whether it rained or not. It was soon evident that in wet weather, this extra water was harmful; so harmful in fact that this kind of irrigation often lowered the yields.

Set Weekly Rate

The next step was to add enough water by irrigation so that when it didn't rain an inch a week, the irrigation plus rain would equal at least an inch. That was an improvement,

but still a long way from perfect, for in cool, humid weather or early in the season when the crop was small it used less water than when nearly full grown and the weather was hot. Either the fixed weekly amounts were too high sometimes or too low at others.

Tests conducted by several experiment stations have shown the importance of irrigating before the soil moisture drops to near the wilting point. Irrigation when about half of the soil moisture had been used gave larger yield increases than did the emergency save-the-crop type of irrigation.

Table 3. Results from 1954 Irrigation mulch tests at 3 locations in New York State[1]

	No mulch No irrig. lbs.	Mulch only lbs.	Irrig. only lbs.	Irrigation and mulch lbs.
Lima beans	10	12	13	12
Corn	49	69	75	93
Tomatoes	94	155	180	227
Peas	15	22	21	28

[1] Yields are for nine 15-foot rows of sweet corn, 15 tomato plants set 3' x 5', six 15-foot rows of peas, and three 15-foot rows of lima beans.

Measure Soil Moisture

One of the next steps was the development of soil moisture measuring devices. The original work on this was done by Dr. Bouyoucos on the use of plaster of Paris resistance blocks and an Ohm resistance meter. Now several commercial makes of moisture blocks and resistance or moisture meters are available.

With this equipment it is possible to determine in a rough way what percent of the available moisture remains in the soil. The available moisture is, of course, the difference between the field capacity and the wilting point of the soil.

The field capacity is the moisture content of the soil after it has been saturated and allowed to drain until no more water drains out. The wilting point is the moisture content at which the plant cannot take up water fast enough to avoid permanent wilting and eventual death unless more water is added.

Soil Capacity Varies

There has been a considerable controversy in the past over whether a plant can use all of the water in the available range equally well or whether it should always have a good supply available. Various soils and crops have given different results in previous soil moisture studies.

Some soils, especially sands, release most of their available moisture very readily. Soils of a heavier nature do not release water so readily. Also, the variability of moisture seems to effect the yield of vegetables more than it does that of tree fruits and nuts.

Test Vegetable Plot

Research was conducted by the Department of Vegetable Crops at Cornell to study the effect of applying irrigation water when the available soil moisture had dropped to certain levels. The results of this were measured on the yield of onions and on the yield and tuber set of potatoes. Sweet Spanish onions and Kennebec potatoes were grown.

The Delmhorst moisture meter and plaster of Paris (gypsum blocks) were used to measure the soil moisture.

Table 4. Wetness characteristics chart for determining soil moisture.

Percentage of remaining available water	Feel or appearance of soils			
	Very coarse textured	Coarse textured	Medium textured	Fine and very fine textured
PER CENT 0 (dry)	Dry, loose, single-grained, flows through fingers	Dry, loose, flows through fingers	Powder-dry; Sometimes slightly crusted, but easily breaks down into powdery condition	Hard, baked, cracked; sometimes has loose crumbs on surface
50 or less (low)	Still appears to be dry; will not form a ball with pressure*	Still seems to be dry; will not form a ball*	Somewhat crumbly, but will hold together from pressure	Somewhat pliable, will ball under pressure*
50 to 100 (good to excellent)	Tends to stick together slightly, sometimes forms a very weak ball under pressure	Forms weak ball, breaks easily, will not slick	Forms a ball and is very pliable; slicks readily if relatively high in clay	Easily ribbons out between fingers; has a slick feeling
Above-field-capacity (over irrigated)	Free water appears when soil is bounced in hand	Free water is released with kneading	Can squeeze out free water	Puddles, and free water forms on surface

* Ball is formed by squeezing a handful of soil very firmly in the palm of the hand.

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After moisture content of the soil changes, the moisture content of the blocks also changes, and the more moisture they contain the less resistance they have to an electrical current. By passing a current through the blocks and measuring the amount of resistance an approximation of the available moisture can be obtained.

Bury Blocks in Soil

The first year they were placed at the six inch depth directly under the rows. The second and third years they were placed at 6, 12, and 18 inch levels directly under the rows. The first year an inch of water was applied each time. But in the second and third years, enough water was applied to fill the soil to field capacity throughout the depth of the rooting zone.

Irrigation was applied when the available moisture dropped to certain levels. These levels were 50, 25, and 5 percent available moisture remaining in the soil. There was also a no-irrigation check treatment which had normal rainfall. Table one shows the amount of water received by each treatment and the yields obtained. Table two shows the rainfall at Ithaca during those three seasons.

Yields Related to Moisture

During all of those years there was a direct relationship between the available moisture at the time of irrigation and the yields of both onions and potatoes. The yield increases were frequently greater between irrigating when the moisture level got down to 50 percent and irrigating when it was allowed to drop to 25 percent each time, than were the differences between irrigating at the 5 percent level and in not irrigating at all.

Irrigation increased both the yield and tuber set of potatoes. Since the onions were Sweet Spanish transplants and since there was adequate moisture for survival at planting time in all plots. the stand was uniform in all cases. Therefore, the onion yield differences were due entirely to the size of the onions. The potatoes showed an increase in the number of tubers set as well as in the yield.

Irrigate Beans, Corn

In 1954, yield studies were also made on lima beans, sweet corn, tomatoes, and peas at three different locations in New York and on three levels of irrigation. In this test it was planned to start irrigating one series of plots when the moisture level got down to 50 percent, to let another go to 25 percent, and to have check plots completely unirrigated.

Due to the chance distributions of rains in 1954, and due to the fact that a helper watered the wrong series of plots (25 percent level instead of 50 percent) at one time, the yield differences were presented only for irrigation as compared with none.

Mulch Some Plots

In these 1954 mixed vegetable plots, shown in figure one, half of the plots were mulched with sawdust July 1 and the other half were given the usual cultivation. Table three shows that both irrigation and mulch are generally better than either alone. But it also shows that mulch does help to hold some water by preventing evaporation from the soil surface. This reduces the amount of damage caused by the dry weather.

Since it would seem to be a good plan to begin irrigation when about half of the available moisture has been used, the grower must decide how he is going to determine that point. Table four suggests the feel or appearance of the various soils at certain moisture levels.

Use Moisture Meter

A simple moisture meter, and plaster of Paris blocks seem to be a good way to measure moisture more accurately and at various depths without disturbing the plant roots. It is probably desirable to have blocks buried at the 6, 12, and 18 inch levels directly under the crop rows. In case of large fields, one set of three blocks for every two to five acres should probably be enough.

From $50 to $100 will buy a meter and some moisture blocks. This is indeed a small investment as compared to the investment in irrigation equipment.

If greater yields can be increased as much as test plot yields indicate, then the moisture meter will pay for itself quicker than will the irrigation system. As a matter of fact, the moisture meter should help to make the irrigation system a profitable venture.

Irrigation systems should be designed with plenty of equipment to permit irrigation of all of the acreage before the available moisture drops too low in any part of the field or farm. Growers who have irrigation systems requiring more than a week to cover the total acreage are not likely to get maximum returns from that equipment.

The fact that decreased yields are likely to result when the available moisture goes below 50 percent would be an important factor to consider in buying and using irrigation equipment.—*End*

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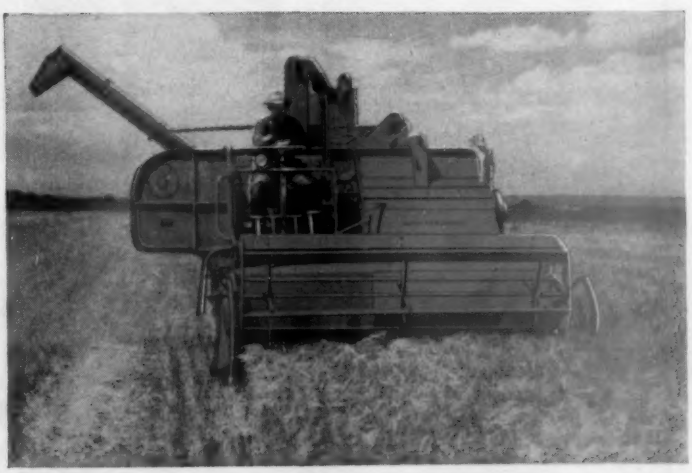

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Kansas county agents find . . .

Demonstrations Sell Irrigation

By Harold Shankland
Kansas State College

● WITH SUB-NORMAL rainfall and a subsequent increased interest among farmers in irrigation, Kansas extension workers are giving more of their time to teaching irrigation know-how to farmers who previously relied entirely on rainfall.

Farmers experienced in dryland farming now going into irrigation farming are finding that practices associated with irrigation and even some of the crops are new to them.

They are learning that they need to know not only the engineering phases of applying water but also crop water requirements, profitable crops for irrigation, seedbed preparation, cultural practices, and fertility needs. To be learned also is the importance of maintaining productivity through crop rotations.

Use Demonstration Methods

To help farmers get this information, that sound teaching method, the demonstration, is being used by Kansans to point out the essentials of irrigation farming.

Kansas State College, recognizing the big increase in irrigation interest, has established four irrigation development farms in cooperation with other agencies, and has continued and expanded its experimental work at the Garden City station.

This western Kansas area, supplied with water from the Arkansas River and deep wells, has many irrigation farmers who have been assisted by Oscar Norby, county extension agent, and the soil conservation technicians in Finney county.

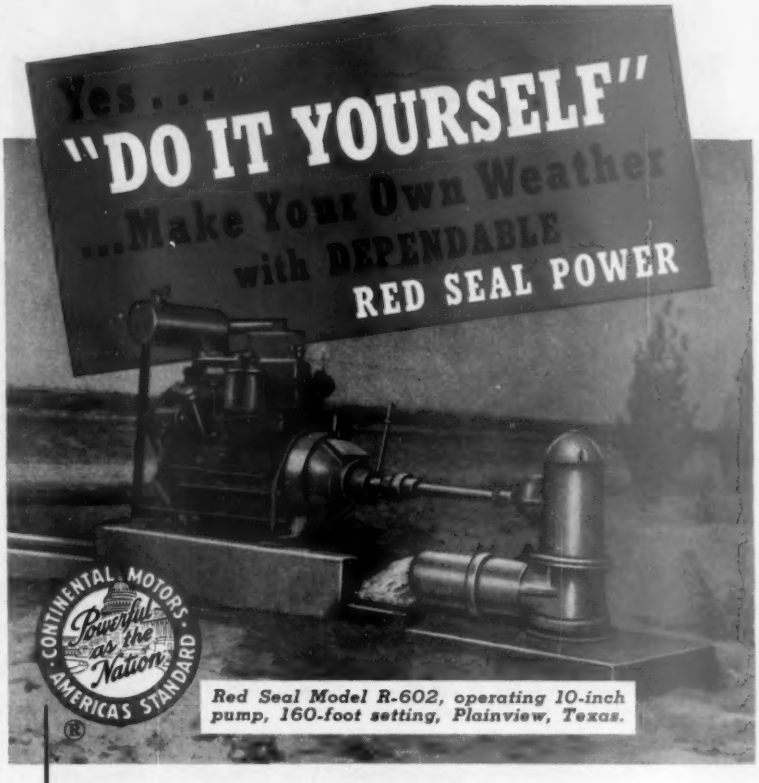
Tours Are Helpful

Educational tours planned by Norby and conducted in cooperation with Gerald Van Vleet, work unit conservationist, have been held each year since 1948. During this period, 12,598 acres have been leveled for irrigation and 112 wells have been drilled for cooperators, according to Van Vleet.

Demonstrations are used in Norby's county and in other Kansas areas to show irrigation methods and practices. One of the farms frequently used is that of Charles P. Olomon, Jr., who was chairman of the Finney county extension council last year.

Like a number of others in the 10,000 acre area served by what is called the "Farmer's ditch," Olomon has not had sufficient water for irrigation since 1951. The John Martin dam west of Lamar, Colo., the source of the water for the "Farmer's ditch," has not impounded enough water to meet irrigators' needs.

Because of this, Olomon last year started developing a supplemental supply of water, something, he is con-



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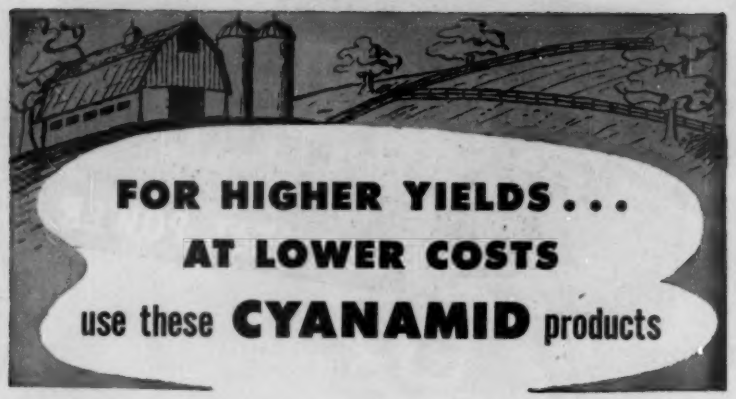


FOR HIGHER YIELDS . . .
AT LOWER COSTS
use these **CYANAMID** products

1 INSECT CONTROL

THIOPHOS® Parathion Insecticides . . . for broad, low-cost protection against more than 100 different insects, on more than 50 different crops.

MALATHION Insecticides . . . combine low animal toxicity with high insect toxicity. Control mites, aphids and many other insects on fruits, vegetables and ornamentals. Also highly effective in controlling flies – even those resistant to DDT.

2 WEED CONTROL

AERO* Cyanate, Weedkiller . . . selective, contact herbicide for killing weeds in onions and other crops.

3 DEFOLIATION

AERO® Cyanamid, Special Grade . . . for defoliation of cotton, soybeans, tomatoes and other crops, as well as killing potato tops to permit earlier, better harvests. Also used as a selective weedkiller in small grains, peas and other crops.

4 FERTILIZATION

AEROPRILLS® Fertilizer Grade Ammonium Nitrate . . . contains 33.5% nitrogen, half in quickly available nitrate form and half in more slowly available ammonia form.

AERO® Ammonium Sulphate . . . a 21% nitrogen, free-flowing material, for manufacturing mixed fertilizers and for direct application.

5 FERTILIZATION, WEED CONTROL, DISEASE CONTROL

AERO® Cyanamid, Granular . . . for weed control in tobacco plant beds; for disease (sclerotiniose) control in certain vegetable crops. Ideal for direct application, and to plow down with cover crops and stubble to make humus.

6 SOIL BUILDING

AERO-PHOS® Florida Natural Phosphate . . . replenishes the natural phosphorus reserve in the soil. One application lasts for several years. Low cost; easily applied in any season.

7 RODENT CONTROL

CYANOGAS® A-Dust . . . all-around pest killer for farm and garden. Kills ants, rats and other pests right in their nests or burrows.

*Trade-mark

WRITE FOR DESCRIPTIVE LITERATURE

AMERICAN Cyanamid COMPANY

Agricultural Chemicals Division
32-E Rockefeller Plaza, New York 20, N. Y.

Branch Offices: Donaghey Bldg., Little Rock, Ark.
1440 Broadway, Oakland 12, Calif.

INSPECTION . . .
Successful irrigation depends upon good equipment.

vinced, virtually every irrigation farmer needs.

His first step was to drill a 315-foot well. It has a 16-inch casing and a 10-inch turbine pump with a capacity of 2,000 gallons a minute. The other major phase of the $10,000 project was a 2 million gallon capacity reservoir.

While Olomon follows much the same irrigation practices he has since 1944, his supplemental water development is of prime interest to farmers now, and it has been used by the county agent in his educational program.

Follow 12-Year Rotation

"Olomon's practices are right in line with our research and experimental findings," Norby said, "and, of course, this serves our demonstration purposes."

Olomon is using a 12-year crop rotation. He likes to keep a third of his land in alfalfa, convinced that this is necessary to maintain fertility in land under irrigation.

Wheat and milo are grown four consecutive years. The alfalfa is plowed under in July of the fourth (or fifth) year and planted to wheat that fall. Sweet clover is planted in the last crop of wheat in April and plowed under the following May before milo planting time.

"In this way Olomon gets a clover crop without missing a grain or alfalfa crop. It gives him a legume between wheat and milo before going back to alfalfa," the county agent said.

Alfalfa Is Dehydrated

Marketing and labor-saving methods and practices also are observed. Olomon has sold his alfalfa to a local dehydrator for eight years. He doesn't think it hurts the stands. This may be due in part to plowing up the alfalfa after four or five years. He figures the difference in the market

for baled and dehydrated hay is about the cost of handling.

Another labor-saving device which this irrigator says eliminates about three-fourths of the labor is the concrete outlet. With permanent ditches at the edges of his fields, he has made and placed 360 of the 700-pound outlets. Made 12 at a time in forms at a cost of about $2.50 each, Olomon and a hired man use a tractor lift in handling the outlets which are placed so the bottom of the outlet is level with the ground to be irrigated.

Plan Farms Together

Like Norby, other extension agents use farms in their counties and irrigation development farms to demonstrate sound irrigation practices.

This goes "across the board" in Kansas. The irrigation development

BIG CAPACITY PUMPS . . .
They bring up the water.

farms are a joint enterprise of the land-grant college experiment station and extension service, Soil Conservation Service, Bureau of Reclamation, Farmers Home Administration, ASC, division of water resources and the state board of agriculture.

An example is the H. O. Malm and Son farm on the Smoky Hill River near Lindsborg. Extension agents from two counties, Elgin R. Button and Brace Rowley, with representatives of the other agencies hold annual field day tours and demonstrations at the Malm farm. This was established in 1951, the first of four such development farms in the state.

These tours and demonstrations show both sides of the picture. Detailed cost figures, as carefully calculated as the crop yields, are explained and given to persons present, and the other "unglamorous" aspects of irrigation aren't glossed over.—*End*

★

To be able to say "No" is of more use to a man than the ability to speak Latin.

For MODERN Plant Nutrition
Tennessee Corporation, the leading supplier of trace minerals to the nation's growers, announces two additional products for improved plant nutrition.
NU-MANESE
(Manganous Oxide)
For soil application, for use in mixed fertilizer or for direct spray or dust application.
NU-IRON
For correction of Chlorosis resulting from iron deficiencies by spray or dust application to the plant.

The above supplements our widely accepted agricultural chemicals.

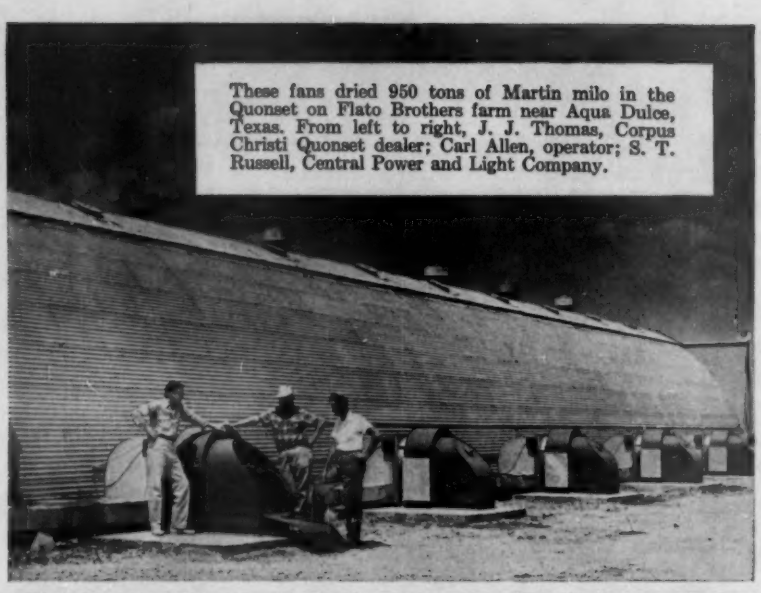
NU-M	NU-Z
TRI-BASIC COPPER SULPHATE	COP-O-ZINK
ES-MIN-EL Spray or Dust	ES-MIN-EL For Soil Application

DUST MIXERS:
Tennessee's **NU-M, NU-Z, NU-IRON** and **TRI-BASIC** Copper Sulphate are especially suited to be used in preparing nutritional sprays and dust mixtures.

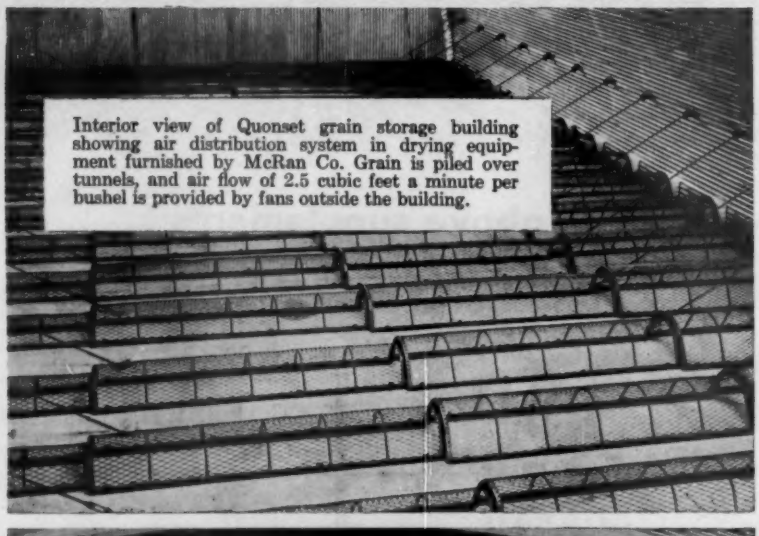
TENNESSEE CORPORATION

617-629 Grant Building, Atlanta, Georgia

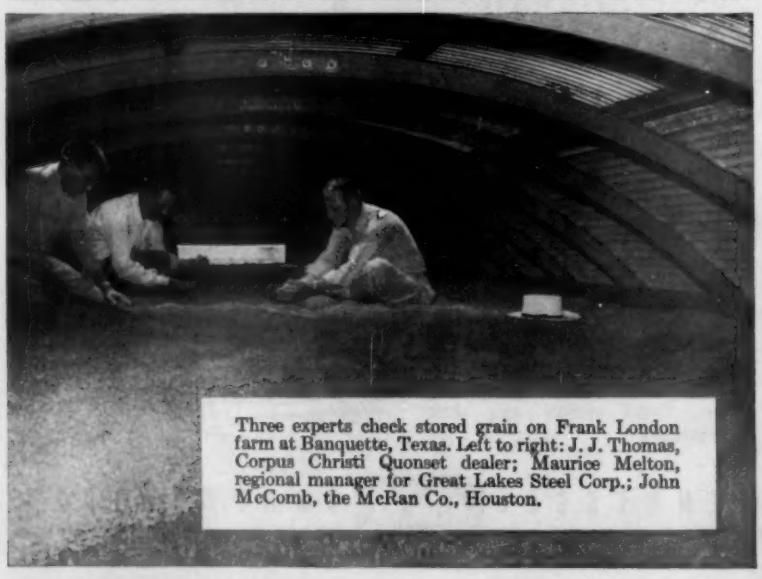
The



These fans dried 950 tons of Martin milo in the Quonset on Flato Brothers farm near Aqua Dulce, Texas. From left to right, J. J. Thomas, Corpus Christi Quonset dealer; Carl Allen, operator; S. T. Russell, Central Power and Light Company.



Interior view of Quonset grain storage building showing air distribution system in drying equipment furnished by McRan Co. Grain is piled over tunnels, and air flow of 2.5 cubic feet a minute per bushel is provided by fans outside the building.



Three experts check stored grain on Frank London farm at Banquette, Texas. Left to right: J. J. Thomas, Corpus Christi Quonset dealer; Maurice Melton, regional manager for Great Lakes Steel Corp.; John McComb, the McRan Co., Houston.

TEXAS—with its usual comments about the biggest and best of everything—might also apply the term of "biggest" to the problem of keeping farm stored grain in condition in the Gulf Coast region. In this area, drying is usually a must, and farmers have taken to the process of drying grain sorghum on the farm with a rush that has amazed the "researchers" and building dealers alike.

Although drying is a successful process with most grains in other sections of the country, it would be hard to find the quantity of a "toughie" like grain sorghum that is being farm-dried in an area of adverse weather conditions, such as found near the Gulf Coast. Until just recently farm storage of grain in this area has been discouraged by moisture and insect problems.

Searching for a solution, extensive tests on drying grain sorghum in different types of buildings have been conducted at Beeville, Texas, under the direction of J. W. Sorenson, Jr., Research Engineer for the Texas A&M College Agricultural Experimental Station.

While contributions to this work

This Quonset 20x84 on Frank London's farm at Banquette, Texas, equipped with a drying system furnished by the McRan Co., was filled with 452,000 pounds of grain sorghum loaded through roof hatches with an auger.

Coastal Plain Dries its Grain

When warm winds sweep off the Gulf of Mexico to blow across Texas and Louisiana, you can practically grab a handful of air and squeeze water out of it. It's a tough area to dry grain in, but grain growers who own Quonset buildings and drying equipment solved their moisture problems.

have come from many sources, considerable support has been furnished by Great Lakes Steel Corporation, and the McRan Company of Houston (South Texas distributors of Quonset buildings).

Experience gained from the past several years of research has pointed up the following principles for successful drying and storage on the farm for this area: (1) Use good, weathertight storage structures; (2) Store clean grain; (3) Dry the grain to 12 per cent moisture content or lower; (4) Use a recommended rate of 2½ cubic feet per minute of unheated air per bushel of grain; (5) Aerate the grain during the storage period; (6) Fumigate for insect control; (7) Check the condition of the grain frequently.

These essentials of drying and storage, along with other technical information concerning design and operation, have been circulated by county agents, the ASC, electric power suppliers, building dealers and others interested in this particular farm operation.

Since the method has passed from the confines of research to an everyday farm operation, the concern of dealers and agricultural leaders has been that nothing be allowed to happen to give the procedure a chance for failure. New types of equipment and unfamiliar methods of operation always pose problems in any industry.

Checks and double checks are being made on new installations to help the farmer be sure that his grain is dried properly and adequately, and that it remains in condition for this storage year.

The Quonset dealer in this area also recognized the responsibility of several million dollars worth of grain on these farms and has a member of his organization call on farm drier operators with advice and assistance to insure that best possible results are obtained with the equipment installed.

Grain drying with unheated air in "on farm" storage structures appears to be permanently adopted as a profitable farm operation. There is no question but that experience and research will continue to give all of us new ideas and better ways of doing the job, just as they have affected all other farming enterprises.

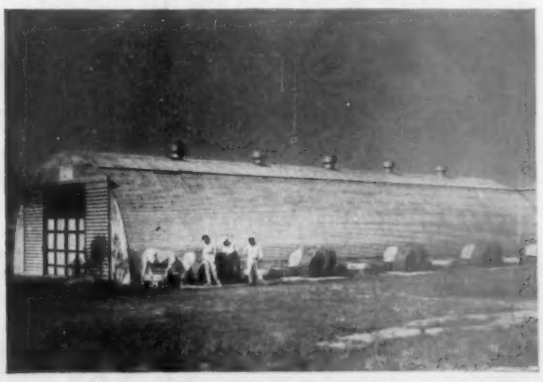
Edwin Schnieder, Mathias, Texas, runs the efficient drying system in his Quonset 32x48 from this master control panel at corner of building. Fans can be moved from one duct opening to another. The power cost for drying grain has been under 2 cents per 100 pounds.

There's a Quonset® for Every Job on your Farmstead

Stran-Steel Division
GREAT LAKES STEEL CORPORATION
Ecorse, Detroit 29, Mich. • A Unit of
NATIONAL STEEL CORPORATION

This Quonset on the Harlan Kelly farm, Aqua Dulce, Texas, was built for implement storage. It was converted to a grain drier by installing ducts in the building, with a fan blowing air into them from each end of the building.

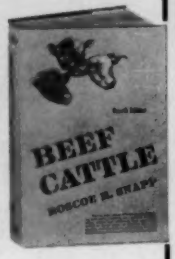
This Quonset 32x96 on the farm of J. W. Mayo, Jr., at Taft, Texas, has successfully dried 1,066,000 pounds of grain sorghum to less than 12% moisture for safe storage. Drying used 12,760 kilowatt hours of power, or .072 KWH per bu.



DID YOU KNOW THAT....

THE 1955 INSEMIKIT CATALOG has a complete farm book section?

• **Beef Cattle by Roscoe R. Snapp** contains the latest breeding and feeding techniques, and is packed with accurate, down-to-earth facts on almost every subject pertaining to beef cattle. It includes 250 tables summarizing recent beef cattle experiments. Special chapters are included on fitting cattle for show and sale and on diseases and parasites affecting beef cattle. 641 pages.....$6.50



• **Animal Breeding by Laurence M. Winters** has been written especially for the working livestock breeder in simple, yet concise, terms. This new edition is aimed at solving the breeders' problems, improving the quality of his stock, and increasing his income. Chapters on fertilization, the breeding season, selection, and artificial insemination are included. 404 pages $5.25

• **The Artificial Insemination of Farm Animals by Enos J. Perry** covers in an easy-to-understand manner all the important phases of artificial beeding of livestock. A best seller in its field, it contains many helpful illustrations. It is a book every farmer, teacher, and veterinarian should own. 334 pages $5.00

Here is an invitation to all Va-Ag leaders . . . to get acquainted with Insemikit's new and expanded service.

Now!—This fastest growing organization in the agricultural supply field is ready to extend still another service to its customers by offering the finest listing of *Agricultural Books and Farm Supplies* that fit the individual needs of Va-Ag leaders everywhere.

Insemikit's large selection of book titles makes it easy for our customers to obtain all their up-to-the-minute text books and supplies in one convenient order. A generous 12% discount is extended on every order of $25 or more, plus 1 free desk copy when 12 or more copies of the same title are ordered.

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THE INSEMIKIT 1955 CATALOG

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With the County Agents

Push Safety Practices

A Vermont county agent has worked hard to make his county safety conscious.

A safety council was organized by Si Jewett, county agent, Lamoille county, Vermont, last year in an attempt to get the people in the county safety conscious, and to help cut down on farm accidents and fires. There are three sub-committees, one each on fire prevention, farm and home safety, and driving safety.

FFA chapters and 4-H clubs working with the farm and safety committee put on a campaign in November and December inspecting about 50 farms for accident hazards. Approximately 60 percent of some 500 hazards tagged on these initial farm visits had been corrected by farmers when further inspections were made 10 days later. All three committees of the council are planning to feature safety demonstrations at the 1955 County Farmers' Field Day, July 30.

Barbers Promote Agriculture

Tennessee barbers are becoming boosters for agriculture.

Charles W. Blankenship, county agent, Springville, Tenn., never misses a bet to get others publicizing and talking his programs. Recently he decided: "Since barbers talk about something, they might just as well talk about artificial breeding and better agriculture."

Blankenship took all the barbers in his county to the artificial breeding bull studs so they might get first-hand information and help promote the artificial breeding program in his county.

Blankenship has an unusually good publicity program in his county. They include *County Agent Notes* in a good location in his local county papers, and a radio program at 12:15 on Mondays. With the use of tape recorder and camera, he provides many additional radio and newspaper stories promoting his agricultural programs.

Agents Launch Publication

Agents in the New England area have begun an Association publication.

Ray Pestle, president, New England County Agents' Association, has started a news letter. It is published quarterly and is being sent to the New England county agents to keep their members better informed of the news and happenings within their own group. Edwin Smith, secretary of the New England Association, and his staff assume the responsibility of mimeographing and mailing the new publication called the "New England Notes."

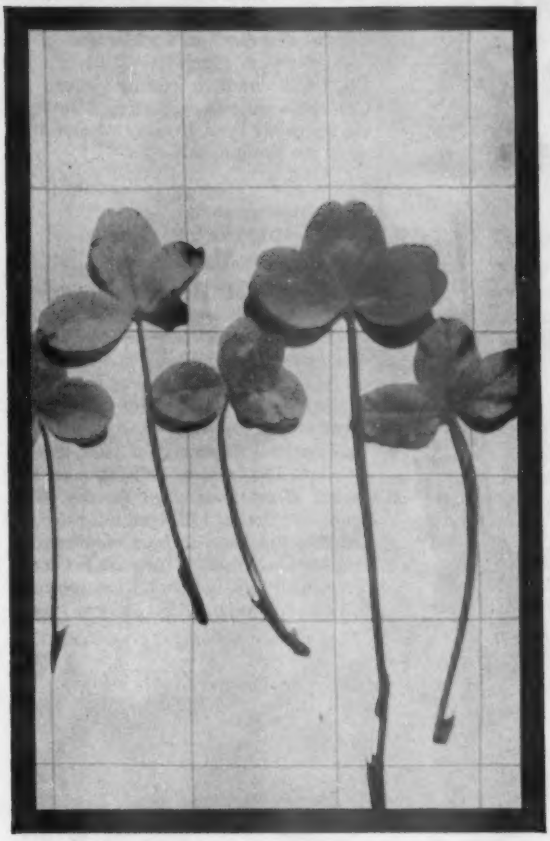
The Montana County Agents' Association, at their annual meeting, selected the following county agents as officers of their association: (l-r) Glenn Jones, Deer Lodge, president; Owen Wirak, Bozeman, 1st vice president; C. W. Vaugh, Helena, 2nd vice president; and Howard Connell, Butte, secretary-treasurer.

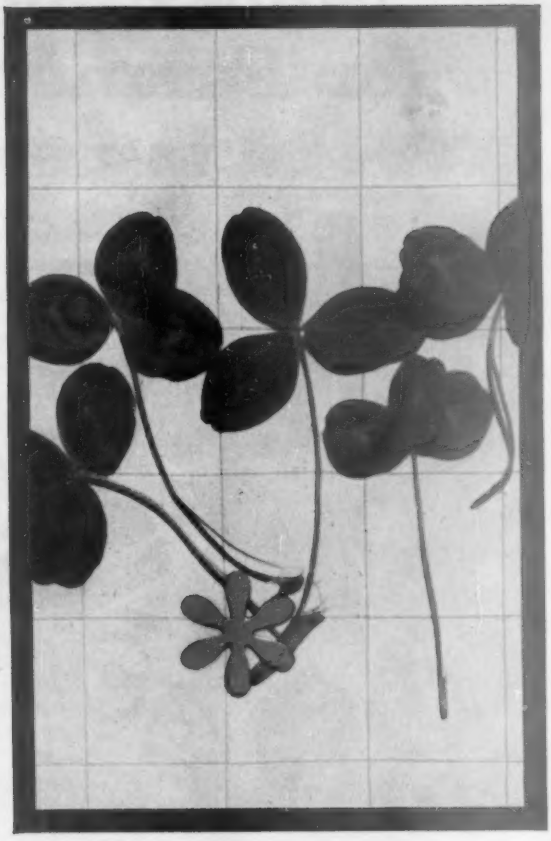
News Notes Here and There

County agent changes—some leave, some retire, some are hired.

Ray Hall, Coos county, New Hampshire, agent since Dan O'Brien's retirement in 1952, left the employ of the extension service, January 31. He is working with the Northeastern Chemical Corporation, Westbrook, Me. All of us wish Ray and his family good fortune.

Charles B. Forney, Bellefonte, Pa., associate county agent of Centre





*Moly PUTS PROTEIN INTO PASTURES

Pasture legumes need traces of molybdenum to fix nitrogen. Without moly, legumes are pale and stunted, and their protein content is low. Grasses are starved for nitrogen too.

Treating deficient soils with moly lets legume pastures put atmospheric nitrogen to work. Legumes grow dark and vigorous. Grasses thrive on the added soil nitrogen. Protein content rises sharply, and total pasture production may increase up to six times.

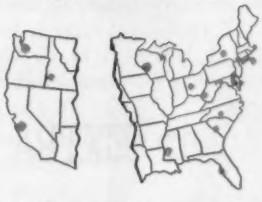
Test moly on your problem pastures and legume stands. You can apply it in fertilizer mixtures, in sprays, or on seed. Write for our bulletin "Testing for Molybdenum Deficiency." Department 42, Climax Molybdenum Company, 500 Fifth Avenue, New York 36, N. Y.

learn why, first hand:

A little moly in each ton of fertilizer is BIG crop insurance.

This advertisement is printed in one shade of molybdenum orange, a pigment widely used for its striking color and good coverage — ideal in paint for farm and field equipment.

Here's where moly can improve pasture production



States already reporting moly deficient soils (E. R. Purvis, *Ag. Chemicals 11/54*)

\+ = Deficiency suspected

Moly is most likely to be needed east of the Great Plains, in the Pacific Northwest, and along the Gulf Coast. Moly deficiencies are most common on soils that are:

1. Highly acid
2. Heavily leached
3. High in iron oxides
4. High in manganese
5. Heavily dressed with sulfates
6. Heavily cropped

MA 5-2

CLIMAX MOLYBDENUM

What's New for Farmers?

...by Sinclair

New GEHL "Hopper" Blower

allows direct, side unloading of hay or silage from wagon. With the blower trough replaced by a hopper, the wagon can be driven right up against the blower for fast, convenient operation. The blower, which is designed for all hay and silage work, is powered by a tractor through a power take off, eliminating work and bother of lining up belt-drives.

New Sinclair EXTRA DUTY Motor Oil

means *less wear, less repair, less oil consumption* in your car, farm truck or tractor. It protects against the effects of high moisture conditions, long idling periods, and heavy loads. Moreover, it combats rust during storage. Switch to new Sinclair Extra Duty Motor Oil, and save your equipment from expensive wear and repair. Available from your Sinclair supplier in quart cans and 5-gal. containers.

SINCLAIR EXTRA DUTY MOTOR OIL

county, became county agent March 1, as successor to Leland H. Bull, now deputy secretary of agriculture.

J. Stanley Hummer, Bloomsburg, Pa., was named county agent of Columbia county, effective March 1. He succeeds Paul Neisley who retired as of the same date.—*End*

★

I-H Displays New Farm Machinery

International Harvester Company presented at the International Amphitheatre, Chicago, Ill., on March 24, what was probably the largest array of diversified farm power and machinery ever displayed by one manufacturer.

Consisting primarily of new developments, the farm machinery runs the gamut of mechanization for the farm from the firm's 1,200 pound Farmall Cub tractor, soon to be available also in a low-boy model, through its complete farm and industrial tractor line, culminating in its giant 23-ton International TD-24 torque converter diesel crawler tractor equipped with a hydraulic bulldozer.

This is the new, low silhouette, three-plow International 300 Utility tractor designed to meet modern farming and commercial needs, manufactured by the International Harvester Company.

Every type of special farm machine was included among the total of 150 exhibited.

Products from the company's motor truck, refrigeration, industrial power, and fiber and twine divisions included five models of motor trucks used most frequently on the farm, complete line of refrigeration products, including refrigerators, upright and chest-type home freezers, air conditioners and dehumidifiers, three industrial power units supplementing a complete line of industrial crawler tractors and a twine exhibit.

Highlighting the two-hour presentation for the press and agricultural college deans was the introduction of the company's new low-profile, all-duty International 300 Utility Tractor. The unit was featured on a centrally-located turntable and in many agricultural displays at the show.

NACCA News

NACCA Is Growing

Since its organization in December, 1946, the National Association of County 4-H Club Agents has grown rapidly, both in membership and program.

Last year the roster included 340 county extension workers, all doing full-time youth work. Fifteen states were represented.

With a membership campaign underway the Association is expecting an increase in membership for the coming year. Membership is open to regularly employed full-time county 4-H club agents, associate and assistant county 4-H club agents. In addition, agents doing full-time 4-H club work bearing other titles are admitted upon approval of the Directors.

Membership is handled by the second vice-president of the Association, Miss Arlene L. Martin, associate county 4-H club agent, Litchfield, Conn. There are also many state membership chairmen.

The purpose of the NACCA is to foster the highest ideals in 4-H club work and to develop nationally the profession of county 4-H club agent. The Association works for advancement in the professional status, professional improvement of its members, increased interest in 4-H club agent work as a career, the exchange of ideas, methods and techniques, cooperation among all extension workers, and progress toward a single professional organization for all extension personnel.

An annual meeting held in Chi-

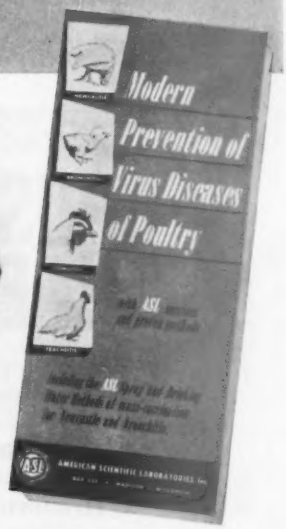
Kansas Club Agent Evelyn Haberman, who served on the Kansas State Awards committee is cross examined by Merle Eyestone following a discussion of State Awards during a conference on 4-H club work held recently at Kansas State College, Manhattan. Kansas club agents shown in the picture, l-r, are: Willis Jordan, Evelyn Haberman, Dick Winger, Earl Hart, and Merle Eyestone. Eyestone is also president of the National Association of County Club Agents.

Most Economical in terms of *RESULTS*

Built-in "plus values" distinguish ASL vaccines—the result of expert techniques and unique production methods backed by thorough research to assure you the finest, most modern and economical poultry protection available.

Full information about ASL vaccines is in the new ASL booklet "Modern Prevention of Virus Diseases of Poultry." It tells about:

- the *one* superior ASL B-1 type *Newcastle* Vaccine that may be used by any of *four* proven ways, including the ASL Spray Method which gives *stronger, longer-lasting* immunity than any other method of Newcastle vaccination known;
- the new and different ASL *Bronchitis* Vaccine, a product of ASL's deliberate and intensive research to develop a vaccine combining the *greatest effectiveness with minimum reaction.* It, too, may be used by individual drop or by ASL methods for mass vaccination;
- ASL *Pox* and *Tracheitis* Vaccines which, like all ASL vaccines, are produced and tested to meet critical ASL standards and provide the purest, safest and most effective vaccines you can buy.



WRITE FOR YOUR COPY OF THIS HELPFUL BOOKLET or get it from your ASL distributor or dealer. And if you prefer the drinking water method of Newcastle vaccination, ask, too, for information on ASL's new, dried-virus vaccine, specially prepared for drinking water use.

These and other ASL biologics, medicinals and pesticides are outstanding products providing the greatest economy of use in terms of results because *quality* is much more than a seven letter word at ASL.

Make "ASL" your buy-word. Ask for ASL products by name. Use them properly and let their plus values work for you.

AMERICAN SCIENTIFIC LABORATORIES, INC.

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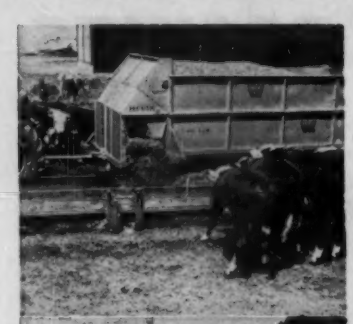
TAKE PASTURE TO STOCK with HELIX UNLOADERS



Save Chore Time . . . Cut Feeding Costs 1/2

★ Unloads At Front Where You Can Watch It

★ Adapts Readily for All Forage Chores, All Silo Filling

Makes forage wagons do more for each dollar invested. Use a Helix side delivery Cross-Conveyor to speed up farming chores . . . save time. New design feature permits removal of elevator for filling low bunks or working in cramped quarters.

And at silo filling time (either trench or upright) or when hauling chopped hay, Helix Rear-End Unloader is the most valuable implement on the farm.

If only a plain forage box is needed now, there's a Helix All-Steel Forage Box that is ready punched and drilled for 2-hour conversion to an automatic unloader.

A new manure spreader attachment is also available . . . makes the Helix wagon an all-purpose implement. Ask any Helix dealer about the inexpensive Helix auger unloader and the Helix easy to install, easy to remove Barn Cleaner, too.

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HELIX CORPORATION
CROWN POINT, INDIANA

For FREE literature, simply print your name and address below and mail to us at Dept. 26G.

Name.....

RR.....

Town.....State.....

cago during National Club Congress saw 4-H club agents gather together to hear about the newest trends in youth work and compare ideas with fellow agents. Outstanding men, such as Paul Johnson, editor, Prairie Farmer, addressed the gathering.

There was time for discussions on the job of the county club agent as well as Association business. The Association helps members with professional improvements through scholarships offered in cooperation with the Sears Roebuck Foundation. Each year several scholarships are made available to members. This phase of the Association's activities is conducted by the Professional Improvement Committee.

Officers of the Association are: Merle Eyestone, president, Topeka, Kans.; Sarah Harmon, 1st vice president, Parkersburg, W. Va.; Arlene Martin, 2nd vice president, Litchfield, Conn.; Isabelle Barden, secretary, Woodstock, Vt.; and K. C. Festerling, treasurer, Boyne City, Mich.

Kansas Agents Meet

Kansas club agents use every opportunity available to them to improve professionally.

Attendance at the recent 4-H club workshop for Kansas extension personnel was almost 100 percent. Home demonstration agents and county club agents in two agent counties were invited to attend.

Kansas Club Agents Dick Jameson (left) and Cecil Eyestone presented the low-down on the Maryland workship to extension workers who recently attended a conference on 4-H work at Kansas State College, Manhattan.

Fellow agents expressed the feeling of club agents about such workshops in that "it was one of the best ways of solving or at least discussing 4-H problems" they had attended. Techniques to improve the program ranged from junior leader programs to special awards and newsletters.—*End*

Thompson Chemicals

PRESENTS A SPECTACULAR ADVANCE IN BROAD SPECTRUM

BRUSH KILLERS

with extra creep for extra kill

Write for latest Research station papers

WEED & BRUSH KILLERS
STOCK SPRAYS
DEFOLIANTS
HORMONES

Thompson
CHEMICALS CORPORATION
ST. LOUIS 3, MO. • LOS ANGELES 27, CALIF.

RAIN BIRD Leads Where Others Follow...

No. 30

For 20 years a pace setter in the irrigation industry, Rain Bird has led the field in improved irrigation sprinklers. Continuous laboratory and in-the-field research assures the performance and reliability of all Rain Bird Sprinklers.

Invest in Rain Bird, the leader! Also, be sure the sprinkler system you get meets the American Society of Agricultural Engineers' standards and fits your requirements exactly.

Literature on request.

NATIONAL RAIN BIRD SALES & ENGINEERING CORP.
AZUSA, CALIFORNIA
RAINY SPRINKLER SALES
609 WEST LAKE ST. PEORIA 5, ILLINOIS

A Few Acres and Security—by L. W. Steelman

Here is just the book for the city person owning a few country acres. This is a practical book by a practical farmer. It will interest people who want to leave the city and enjoy life in the country. The book is written in everyday language. **Price $5.00.**

BETTER FARMING METHODS, Service Department Mount Morris, Illinois

Helpful BOOKLETS

AG CHEMICALS

100—Peanut Weed Control

In a six-page pamphlet just released, the Carbide & Carbon Chemicals Company describes one of their newer products that will kill weed seeds as they sprout in peanut fields. The pamphlet answers many questions on such weed control, and will be of particular help in answering farmers' questions.

On the postal card
CIRCLE 100

101—Kill Lawn Insects

Everyone likes a nice lawn, and so do insects. To get one and thwart the other, the Shell Chemical Company has produced a highly interesting and informative booklet on "How to Kill Lawn Insects with Dieldrin." Illustrated throughout with actual photographs and cartoon characters, plus a great deal of useful and helpful information, this is a very valuable booklet for the ag leader.

On the postal card
CIRCLE 101

102—Don't Forget Moly

Traces of Molybdenum are essential to good plant growth. How to test for it, the importance of this element, and how it can be used are explained in several booklets available to ag leaders from Climax Molybdenum Company. Be sure you are fully informed of this product, and you can receive the booklets by merely circling the appropriate number.

A—Testing for Molybdenum
B—Molybdenum Symposium
C—Molybdenum and Lime
D—Molybdenum Opens New Markets

On the postal card
CIRCLE 102A, 102B, 102C, 102D

103—The Value of Creosote

All farmers are interested in longer life of fence posts and poles. With this in mind, the Dierks Lumber and Coal Company has prepared for your information and use two booklets on the value of creosoted posts and how they can be used economically. You will find these of specific interest and help to you.

A—Black Post Racket Exposed
B—Pole Barn Construction

On the postal card
CIRCLE 103A, 103B

104—Herculean Insecticides

A little insecticide does a big job, especially when properly used and applied. Here are booklets by the Hercules Powder Company that bring you up-to-date on the uses and economic significance of Toxaphene in its control of injurious pests. Be sure you have copies of these booklets for your files.

A—Cotton Insects
B—Toxaphene for Army-Cutworms
C—Kill Spittlebugs
D—Control Peanut Insects
E—Death of a Boll Weevil

On the postal card
CIRCLE 104A, 104B, 104C, 104D, 104E

105—Newest Rat Control

Motomco, Inc., has introduced several newer rat poisons that have been quite successful in the field. To keep ahead of this pest, you need to be abreast of the latest control measures. Three booklets from this company will help you understand their product and how it has been successfully used.

A—Pival Rodenticide
B—Water-Soluble Pivalyn
C—Control Field Rats

On the postal card
CIRCLE 105A, 105B, 105C

106—Chlordane and Heptachlor

These two insecticides have proved quite useful in the agricultural field for controlling a variety of field and crop pests. Be sure that you instruct, by circling on the postal card, the Velsicol Corporation to send you the following booklets they have available for agricultural leaders.

A—Cattle Lice and Tick Control
B—Corn Rootworm Control
C—Cotton Insect Control
D—Grasshopper Control with Heptachlor
E—Control Tobacco Wireworm

On the postal card
CIRCLE 106A, 106B, 106C, 106D, 106E

107—Antibiotics for Plants

Antibiotics are coming into use as a control for certain plant diseases, such as fireblight of apples and pears, bacterial spot of tomatoes and peppers, and soft rot and blackleg of potatoes. To bring ag leaders up to date on this practice, Chas. Pfizer & Company has two brand new educational booklets for you. Include your request for these on the post card, by all means.

A—Recent reports on the use of Agri-mycin 100
B—Agri-mycin Plant Spray

On the postal card
CIRCLE 107A, 107B

ANIMAL HEALTH

108—Antibiotics Will Fight!

Yes they will. They are very effective against many diseases of livestock and poultry. Booklets of the American Cyanamid Company will give you full information on how certain antibiotics react in feed and prevent poultry and livestock losses.

A—Disease Prevention in Poultry
B—Help Prevent Scours
C—Help Prevent Disease Losses
D—Nutritional Effects with Antibiotics

On the postal card
CIRCLE 108A, 108B, 108C, 108D

All Booklets Listed in this section are

FREE!

These booklets are available from these individual companies and will be of help to you in your work of training and advising farm people.

110—Keep Fighting Disease

Many times it's good management to vaccinate against certain specific ailments. Anchor Serum Company has prepared some booklets that explain this type of management and also how it can best be used in the overall farm enterprise. Be sure to include an order for those booklets on your postal card.

A—Brucella Abortus Vaccine
B—Mastitis
C—Ovine Enterotoxemia (Overeating Disease)
D—Blackleg and Shipping Fever

On the postal card
CIRCLE 110A, 110B, 110C, 110D

109—Poultry Disease Management

The American Scientific Laboratories would like to send you a book entitled "Modern Prevention of Virus Diseases in Poultry" that will help you keep abreast of late developments in the poultry field. It takes good management to get good profits, and much of the information in this booklet will be of help to you in helping farmers who raise poultry.

On the postal card
CIRCLE 109

111—Veterinary Aids

It is hard now-a-days for an ag leader to keep abreast of all the developments in the livestock field. This is particularly true in keeping up with the latest in vaccines and serums. Booklets from the Colorado Serum Company will bring you late information and make valuable additions to your file on this subject.

A—Normal Serums
B—Anti-Hemorrhagic Septcemia Serum
C—Brucella Abortus Vaccine
D—Hog Holders

On the postal card
CIRCLE 111A, 111B, 111C, 111D

112—Chick Coccidiosis

This is a perennial problem to the poultry raiser. A booklet entitled "Coccidiosis of Growing Chicks," published by Moorman Manufacturing Company, is yours for the asking. It will do much to help you understand how to effectively control this disease.

On the postal card
CIRCLE 112

BREED ASSOCIATIONS

113—Black Cattle Facts

Two booklets from the American Aberdeen Angus Breeders Association are yours for the asking, giving pertinent information on the history and development of this breed. You'll find that they will make valuable contributions to your teaching program.

A—Blacks Breed Better Beef
B—History of Aberdeen Angus

On the postal card
CIRCLE 113A, 113B

How to Order Booklets

1. Clip out the postal service card.

2. Fill in your name, position, and address in the space provided.

3. Circle on the postal card the numbers of the booklets you want to receive.

4. Mail the card! It is self addressed and NO POSTAGE IS NECESSARY.

114—Convincing Sheep

Corriedales are a popular breed of sheep, but it may take information in this booklet to bring you abreast of their advantages. That's why the American Corriedale Association, Inc., would like to send it to you.

On the postal card
CIRCLE 114

115—Poland Chinas

That's the title of a booklet that the Poland China Record Association has available for you. It explains the intensified breeding program in this breed of hogs to keep abreast of the market demands and needs. You will find it of extreme help in counselling farmers.

On the postal card
CIRCLE 115

BUILDINGS

116—Building Ideas

The Celotex Corporation has a booklet entitled "Better Farm Buildings" that has numerous ideas on how your farmers can improve their farm buildings. It has many helpful suggestions and contains a wealth of practical information. You can use it directly in your work.

On the postal card
CIRCLE 116

117—Quonset Buildings

There are still many farmers who are interested in and desire more information on quonset steel buildings. That's why the Great Lakes Steel Corporation is making available to you these three booklets that will be of help in answering farm questions on this subject.

A—Quonset Buildings
B—Stall Dairy Barns
C—Loose Housing Dairy Barns

On the postal card
CIRCLE 117A, 117B, 117C

118—J-M Asbestos

How to best use asbestos flexboard on the farm is given in a booklet available to you from the Johns-Manville Corporation. Certainly you will wish a copy either to circulate among your farm people or to keep as a reference in your office. Many practical suggestions and ideas are contained in the booklet.

On the postal card
CIRCLE 118

119—Building Portfolio

The Kaiser Aluminum and Chemical Corporation has two booklets specifically designed for use by ag leaders. You will find in them innumerable ideas and suggestions, including some specific plans for farm buildings. Be sure to ask for these two booklets by circling the appropriate number.

A—Roofing and Siding Farm Guide
B—Farm Building Plans Portfolio

On the postal card
CIRCLE 119A, 119B

☆ NEW

Never the same—

121—Table-Top Movies

Here is a booklet on "Home Movies the New Table-Top Way with Tips and Tricks on Movie Editing". It describes a new way to enjoy home movies made possible with a new-type table projector that does not require a darkened room. The Kalart Company has made the booklet available and you can receive one by circling the appropriate number.

On the postal card
CIRCLE 121

122—The Furrow-Master

This is a new cover device designed to fit any moldboard plow and used as an aid in cleanly turning under fields heavily covered with trash, stubble, or other roughage. It is a product of the Russell Manufacturing Company and they would be glad to send you additional information.

On the postal card
CIRCLE 122

123—The Soil Leveler

The Soil Mover Company is offering an illustrated pamphlet describing their improved Soilevler, land leveler. New extra-rigid, torque-free frame with hydraulically operated blade shaves off unprofitable high spots and fills in low areas. Levels, then packs the soil. It works in conditions that stop others.

On the postal card
CIRCLE 123

125—Outdoor Lighting

It pays to light the farmyard as any farmer knows, but many do not do it economically. This new booklet, "Outdoor Lighting for Your Farm" by Sylvania Electric Products, Inc., is a must for reference and helpful information. Notebook size, it contains a wealth of information.

On the postal card
CIRCLE 125

Booklets and Products ☆

Watch for the change—Every month!

124—Boomless Sprayer

Engineers of the Hanson Chemical Equipment Company have devised a new Hanson Brodjet sprayer with exclusive nozzle design. It can spray a swath up to 68 feet wide and gives effective and economical applications of agricultural chemicals. More information and a booklet describing this newest advance in spray nozzles is yours by merely circling the appropriate number.

On the postal card
CIRCLE 124

126—Soil Thermometer

Recent research has proved that the temperature of the soil is important when planting some crops. That's why you'll profit from the information available from Servis Equipment Company on their soil thermometer. Be sure to include their number on the postal card you are mailing today.

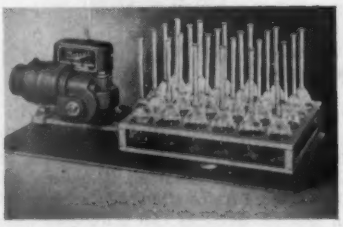
On the postal card
CIRCLE 126

127—Sprinkler Systems

Much emphasis is being placed throughout the country today on irrigation. Sprinkler irrigation is common in many sections of the country and growing in popularity. That's why it's important to know how to choose a portable sprinkler irrigation system. A booklet on this subject is available to you from the Shur-Rane Department, Food Machinery and Chemical Corporation.

On the postal card
CIRCLE 127

128—Bottle Shaker



Have you ever wished to eliminate the hand shaking of milk test bottles? Well, this bottle shaker developed by Garver Manufacturing Company, will do it. In addition, you get uniform tests and there is a distinct safety factor. Circle the appropriate number today and let them send you more information on this new product.

On the postal card
CIRCLE 128

129—Poultry Sanitation

A very excellent and well-illustrated booklet available to ag leaders on sanitation in the poultry industry. It covers all phases of poultry management and gives many practical suggestions plus a comprehensive review of the subject. The Klenzade Products, Inc., has made the booklet available and would like to send you a copy.

On the postal card
CIRCLE 129

130—One Pass Does It

You make one round and then your ground is ready to plant with a machine developed by H & G Manufacturing Corporation. A pamphlet describing this and what it will do for the average farmer can be obtained by circling the appropriate number.

On the postal card
CIRCLE 130

120—Let in the Light

Windows can increase profits, according to this information supplied you by the Libbey-Owens-Ford Glass Company. It is hard to realize at first, but after receiving the booklet, you will soon understand how such windows can be beneficial. The booklets are yours for the asking.

A—Windows Increase Dairy Profits
B—Windows Increase Hog & Sheep Profits

On the postal card
CIRCLE 120A, 120B

131—The Harvestore

"Facts About Harvestore" is the title of a booklet giving you information on the newer type silo, the one that is glass lined. A. O. Smith Corporation has prepared this booklet and would be more than happy to send you a copy. Circle the appropriate number on the card you are mailing today.

On the postal card
CIRCLE 131

FARM EQUIPMENT

132—Laddies, the Ladder!

Yes, watch it carefully. It can be the cause of an accident. That's why the American Ladder Institute has three very informative and worthwhile booklets on ladder safety. You'll want them for instructional purposes and to make them available to your farmers.

A—Ladder Safety
B—Do's and Don'ts of Ladder Safety
C—Right Ladder for Every Job

On the postal card
CIRCLE 132A, 132B, 132C

133—Gas Tractor Fuel

Many times farmers will ask you for additional information on LP gas as a tractor fuel. That's why the LP Gas Council would like to send you a booklet giving you pertinent information concerning this fuel, its advantages, and how it serves the farmer economically.

On the postal card
CIRCLE 133

One Card for You . . . . . and an Extra One!

In each issue of Better Farming Methods you will find duplicate postpaid postal cards. Each card has printed a complete numbered listing of material. Each number refers to a specific booklet or booklets reviewed in this issue of the magazine.

One card is for your use—the other one you may want to pass along to some other agricultural leader in your office.

Use the cards each month. Remember, no booklet listings are repeated from the previous month.

134—Mechanical Milker

Rite-Way Dairy Division has a booklet on "Swing Milker and Parlor Milker" that will give you pertinent information on this type of dairy equipment. You may wish to include it on the postal card being mailed today so that you can add this is your reference material on this type of farm equipment.

On the postal card
CIRCLE 134

135—Weed Cutter

Two booklets available from Roof Welding Works give you information on their cutter and chore cart. This is equipment that may be of interest to your FFA chapter as well as to farm people.

A—Roof Weed Cutter
B—Roof Handee-Cart

On the postal card
CIRCLE 135A, 135B

FARM MACHINERY

136—Between-Row Seeder

With the increased interest in wide-row corn planting, Brillion Iron Works has developed a between-the-row seeder. They have a booklet they would like to send you describing this piece of equipment and how it can be economically used by farmers.

A—Between-Row Grass Seeder
B—Brillion Pulvi-Mulcher

On the postal card
CIRCLE 136A, 136B

137—Good Crop Management

These booklets available to you from the J. I. Case Company will be extremely helpful and contain much information you can use in your classroom. Farmers, too, will be interested in seeing them, for much of the information is practical and deals with farming applications rather than directly with the company's machinery products. See that you get these copies today.

A—Chop the Crop
B—One Equals Four
C—More Food From Fewer Acres
D—Water Spreading
E—Modern Machines Bring Back the Range

On the postal card
CIRCLE 137A, 137B, 137C, 137D, 137E

138—"Chop-All" Catalog

Gehl Brothers Manufacturing Company is willing to send you a 16-page catalog announcing the various pieces of equipment and their application which they manufacture. In addition to describing their machinery, much additional information is given that will be valuable to you.

On the postal card
CIRCLE 138

139—A Buying Guide

Have you received a copy yet of the Massey-Harris Buying Guide? If not, perhaps you'd like the Massey-Harris Company to send you one for your information. It will prove of help and value to you in answering questions farmers might have concerning this line of farm machinery.

On the postal card
CIRCLE 139

FEEDS

140—Dehydrated Feed

Experiments are showing that dehydrated alfalfa is an excellent feed for many groups of livestock. The American Dehydrators Association has two booklets on this subject that can bring you latest information on this practice.

A—Improved Beef Supplements
B—Increased Profits from Sheep

On the postal card
CIRCLE 140A, 140B

141—How to Feed Salt

All livestock need salt, yet many fail to realize this important fact. Here are three booklets from the International Salt Company giving you the latest information on how and why to feed it.

A—Blusalt Increases Profits
B—Greensalt (With Pheonothiazine)
C—Salt Mineral Feeding Boxes

On the postal card
CIRCLE 141A, 141B, 141C

142—Livestock Management

Nutrena Mills, Inc., has several booklets on livestock feeding that give you valuable management tips. See if you don't agree that much useful information is contained in them.

A—Starting Baby Pigs
B—Feeding Cattle for Profit

On the postal card
CIRCLE 142A, 142B

143—The Vitamin D Story

This vitamin is still needed in all types of livestock and poultry management. Much is still misunderstood concerning it, and that's why these booklets from Standard Brands, Inc., will prove of value.

A—Vitamin D—Kinds and Units
B—Sunshine and Sun-Cured Hay

On the postal card
CIRCLE 143A, 143B

TEACHING AIDS

145—Land Smoothing

It's important in many areas where irrigation is carried on. A booklet, "Land Smoothing, Key to Orderly Water Disposal," has been prepared by the Eversman Manufacturing Company and you may receive a copy by merely circling the appropriate number.

On the postal card
CIRCLE 145

144—Booklets for Boys

Yes, and adult farmers too. Yet, boys are interested in fitting and showing livestock and that's what a good deal of this information is about. Albers Milling Company has three booklets they would like to send to you, and they are sure you and your boys, both young and old, will find them of value.

A—Selecting, Fitting, and Showing Dairy Cattle
B—Feeding Baby Beef for Show
C—How to Raise Better Livestock

On the postal card
CIRCLE 144A, 144B, 144C

TOOLS

146—Vest Pocket Guide

Here's an excellent little pamphlet that you can hang in your shop as a jiffy guide to the care and use of vice-grip wrenches. It has any number of pictures that illustrate the points in question, and the Peterson Manufacturing Company would be glad to send you a copy if you will only circle the appropriate number on the postal card.

On the postal card
CIRCLE 146

147—Electric Tools

Everybody's interested in electric tools, whether it's for the home or farm workshop. The Mall Tool Company has several informative pamphlets that will interest all people who use tools besides giving them practical and useful information.

A—Portable Electric Tools
B—Drill Attachments, Accessories
C—Make Every Man a Craftsman

On the postal card
CIRCLE 147A, 147B, 147C

148—Porter Pruners

Most FFA and 4-H boys study, at one time or another, proper pruning. To do this job requires proper pruning shears. The H. K. Porter Company has a complete line of pruners that will be of interest to you as an ag leader. Be sure to request them by circling this number to send you information on their line of pruning tools.

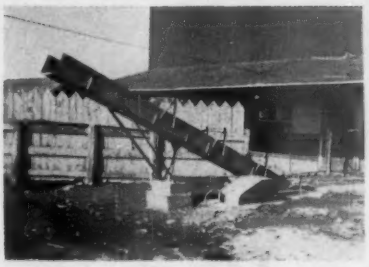
On the postal card
CIRCLE 148

VISUAL AIDS

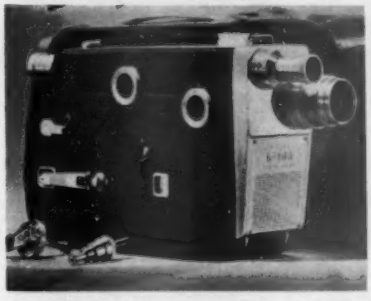
149—The Victor Line

The Victor Animatograph Corporation would like to send you a pamphlet outlining their equipment, its use, and application. It is yours for the asking and will bring you up to date on this modern line of 16 mm., sound, motion picture equipment.

On the postal card
CIRCLE 149

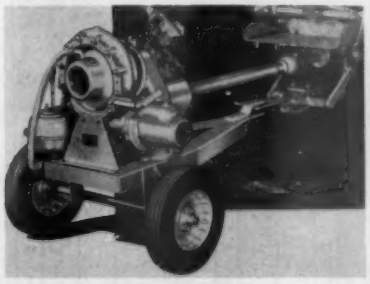


The James Manufacturing Company, Fort Atkinson, Wis., recently introduced a low-cost shuttle stroke barn cleaner for small to average size barns. It will operate two or more gutters with a single drive unit.

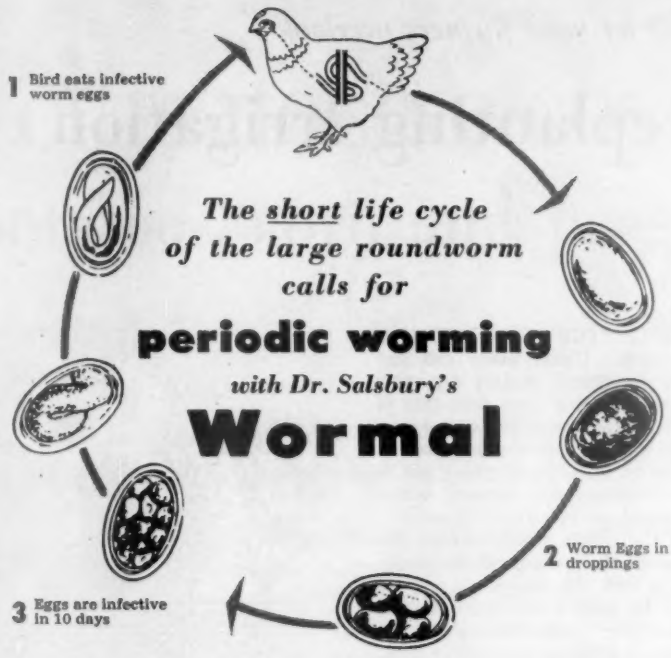


Eastman Kodak Company has recently introduced a new 16 mm. roll-film camera, the Cine-Kodak K-100. It has a full speed range and comes equipped with either of two Kodak lenses. The company, located at Rochester 4, N. Y., would be glad to send you more complete information.

This is the way to make a ditch. A Caterpillar tractor is pulling a V-type ditcher making a ditch eight feet wide at the top and 42 inches deep. Sure beats digging!



Here is a specifically designed tractor power take-off driven pump for sprinkler irrigation. It will deliver more than 500 gallons per minute at 100 pounds pressure. It is a product of the Gorman-Rupp Company, Mansfield, O.



The short life cycle of the large roundworm calls for

periodic worming

with Dr. Salsbury's

Wormal

Urge poultry raisers to worm *their birds at regular intervals* The most common poultry worm—the Large Roundworm—*reproduces itself in only 28 days* in young birds . . . a little longer in older birds. Therefore, to prevent losses due to recurring worm infestation, chickens should be wormed every 30 days or so.

Improvements in breeding, feeds, and management can *make worm-infested chickens look normal.* This makes *regular worming* even more essential if poultry raisers are to be sure of top profits.

Recommend Wormal with confidence

Wormal is the most effective poultry wormer of them all. Contains the *exclusive* drug *Butynorate.* Wormal *Granules* or Wormal *Tablets* remove all these worms: Large Roundworms, Cecal Worms, Tapeworms. Wormal *tablets also* expel Intestinal Capillaria Worms.

CONVENIENT, ECONOMICAL — Palatable Wormal Granules *mix easily in the feed for flock worming.* Wormal Tablets are *easy to give individual birds.* One extra egg per bird pays for a low-cost Wormal treatment.

You provide poultry raisers a real service, when you recommend *periodic worming with Wormal.* Write for literature.

DR. SALSBURY'S LABORATORIES
Charles City, Iowa

a complete line of poultry medicines Dr. SALSBURY'S

RAISE DUAL PURPOSE MILKING SHORTHORNS —most dependable BREED of CATTLE!

It's never safe to put all your eggs in one basket. And it's never safe to depend on single-purpose Cattle. Raise Milking Shorthorns—they're DUAL-PURPOSE. FIRST, you get 4% milk and PLENTY of it. (A Milking Shorthorn holds highest butterfat record in world, also highest records on twice-a-day milking!) SECOND, they have greatest salvage value of all milk breeds. Even if prices of both milk and meat drop, you STILL have TWO barrels loaded — you have 50% more bargaining power than one-purpose cattle raisers. Further, Milking Shorthorns convert home-grown feeds and roughage into meat, milk and butterfat most economically. Get the facts. Write for FREE facts or subscribe to Milking Shorthorn Journal, published monthly. 6 months, $1.00; one year, $2.00; 3 yrs. $5.00. Subscribe NOW! AMERICAN MILKING SHORTHORN SOCIETY, 313-BFM-5 S. Glenstone, Springfield, Mo.

FREE FACTS

PIONEER® DAIRY FEEDS · RED COMB® POULTRY FEEDS · PIONEER® HOG FEEDS

Efficient feeding programs for all livestock and poultry that produce *"Quality Results at Low Cost".*

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Buy Savings Bonds!

Don't let your farmers overlook . . .

Preplanting Irrigation . . . it Pays

By Karl Harris
University of Arizona

● PREPLANTING IRRIGATION is profitable. Under many soil and climatic conditions, it has a greater influence on yields than does that of any other irrigation of the entire season. In areas where the soils have a tendency to disperse or where silt is the predominate soil texture, water intake problems are likely to occur.

With the above conditions in the preparation of the seedbed and planting of the crop, the intake rate may be reduced to such a low point that a deep moisture penetration could not be obtained within a reasonable time, and without a waste of water by run-off or evaporation.

The intake rates will continue to decrease as a result of succeeding irrigations, rain storms, cultivations, or other farm operations involving equipment on the soil.

Moisture Is Vital

A deep moisture penetration is vital for high yields in the production of most field crops. Normally the roots of plants will increase in depth during the active growth period of the plant as long as they encounter a favorable environment, such as the following:

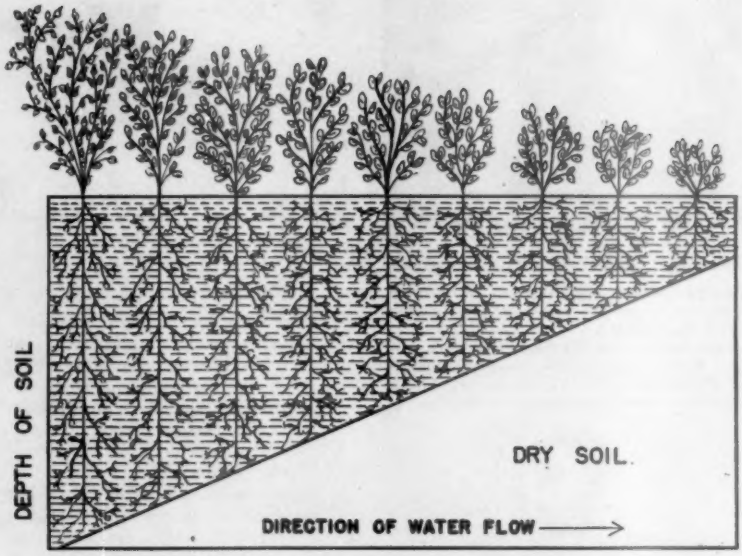
1. Available soil moisture.
2. Abundant air in soil.
3. Favorable soil temperatures.
4. Plant food.
5. No excessive amount of toxic material (salt or plant disease organisms).

Plant Determines Value

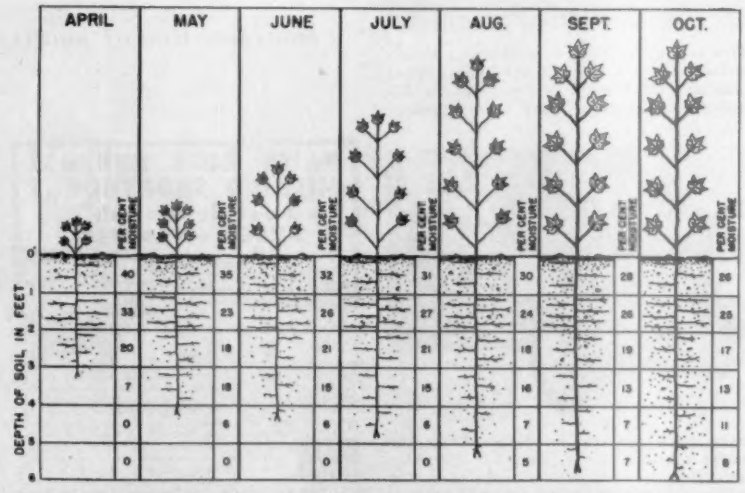
The value of deep moisture penetration probably varies with the peak water demand of the plant. If this is true, there would be greater benefits from a deep moisture penetration in the dry hot areas than in the cool areas with a high relative humidity.

But regardless of location, vigorous root growth and high production are synonymous with moisture penetration to the maximum potential depth of root development for a particular plant.

Figure one illustrates a very common condition in irrigated areas. It shows the plants getting progressively smaller from the upper to the lower end of the field. Where this condi-



1.—Effect of depth of moisture penetration on size of plants.



2.—Percentage of soil moisture used by cotton plants from various depths during the growing season. Water put into the fifth and sixth foot levels at the preplanting irrigation is used to insure adequate moisture during the latter part of the season.

PREMERGE CUTS HOEING COSTS

in beans, potatoes, corn and peas

Hoeing corn the day it is planted! Shown is *pre*-emergence application with spraying equipment mounted on corn planter.

*Post*emergence application of Premerge to peas (shown) and other deep-planted crops is a low-cost, effective practice.

Keeps annual grass and weeds down . . .
reduces need for early cultivation . . .
helps prevent soil compaction . . . boosts yield

A bigger, cleaner crop is usually assured the day Premerge® is applied to lima beans, field beans, snap beans, soybeans, peas and corn, as well as potatoes. Premerge is the dependable *dinitro* weed killer used in *pre*-emergence or *post*emergence treatment of these crops. It does a good job *in one* application, saving many days of time and labor, and eliminates one to three cultivations. Crop roots grow better in soil not "packed" by excessive early cultivations, and young plants are not disturbed. Premerge helps prevent soil compaction.

Growers have found that Premerge gives low-cost "in-the-row" weed control and is effective even during early season rains when cultivation cannot be done and weed growth is fast. We suggest you use the handy coupon for information on Premerge and its many uses. THE DOW CHEMICAL COMPANY, Agricultural Chemical Sales Department, Midland, Michigan.

THE DOW CHEMICAL COMPANY
Agricultural Chemical Sales Department
Midland, Michigan

Please send the following literature on Premerge:
IN454: Premerge on Soybeans, Field Beans and Snap Beans
IN455: Premerge on Potatoes
IN446: Calibration of Tractor Equipment for Premerge

Name_____

Address_____

City_____ State_____

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DOW

. . . your best drought insurance!

- Field tested under field conditions
- Designed for uniform water distribution
- Driven by "extra-power" movable deflector
- Protected from abrasive sand
- Simple in construction with a minimum of moving parts
- Ruggedly constructed

Write today for complete information.

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107 Water St.
Troy, Ohio

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Patented

ENGINEERED SPRINKLER, FLOOD, FURROW IRRIGATION EQUIPMENT

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Established 1910
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48-CUP ELECTRIC COFFEE URN GIVEN to YOUR GROUP WITHOUT ONE PENNY COST!

Get this big gleaming 48-Cup Electric Drip-O-Lator Coffee Urn and never pay or send a single penny! I'll send it to you in advance along with a supply of my famous flavoring. All you need to do is have 10 members of your group each sell only 4 bottles and the 48-Cup Urn is yours to keep! Take as long as 60 days. No money down . . . we give credit. Not a cent of your own money is needed, ever. Write now for this amazing offer.

Guaranteed by Good Housekeeping

Anna Elizabeth Wade
1739 Tyree Street
Lynchburg, Virginia

tion exists a check of the moisture penetration at different parts of the field would probably show a direct correlation between the size of the plant and depth of moisture penetration.

The author has found this so on many fields covering a period of 30 years. In flying over the land of an irrigated area a very common sight is the more dense vegetation at the upper end of the field and the less dense in the lower portion of each irrigation run.

Water Cleans Soil

In areas where salty water is used for irrigation, there is a tendency for salt to accumulate in the soil. The preplanting irrigation affords the best opportunity to leach the excess salt below the root zone. This leaching process has made profitable crop production possible even when irrigated with water often considered to contain an excessive amount of salt.

The depth of the preplanting irrigation determines to a minor degree the frequency of subsequent applications. It has a definite influence on the date of the last irrigation needed for seed producing crops such as grain and cotton.

Deep Moisture Necessary

Whenever the plant is either growing vegetation or maturing its fruit, water is needed to take care of the cell structure development. With only shallow wetting, it is often impossible to apply water at frequent enough intervals during the heat of the summer so that the plant does not suffer. The water it is able to get from the deeper depths is the insurance that will allow the plant to continue to grow.

If there is a supply of deep moisture available from early irrigations, the last irrigation need not be given as late in the season as would be necessary if only a shallow penetration had been secured. As the plant approaches maturity, it still needs water, but not in the quantity needed during the period of most rapid growth. The water available at the lower depths will take care of the needs of the plant. Therefore, abundant supplies of moisture are not needed in the upper two feet of soil by the mature plant.

How Much to Apply?

The amount of water to apply at the preplanting irrigation is dependent upon several factors such as:

1. Texture and depth of the soil.
2. Rooting habits of the crop.
3. Amount of salt to be leached below the root zone.
4. Amount of moisture already in the root zone.

In general, roots work deeper in sandy soils than they do in clay soils, but the sands hold less water per foot of depth. Thus, the amount of water to apply on the two soil types tends to equalize.

The heavy soils should be wet to a depth of six feet and the lighter soils deeper. If the soils are dry, this requires about an acre foot of water, exclusive of runoff.—*End*

Watermelons

Here is a paper-bound 34-page descriptive reference manual on watermelons. It contains pictures and describes nearly every watermelon variety in current use today. Ag leaders will find it of interest and in sections where watermelons are extensively grown, it will be a ready reference and very helpful booklet.

It would pay you to write to Lawrence Robinson & Sons, Modesto, Calif., for your free copy.

Pictured here are the new farm advisers and assistants that have recently accepted positions in Illinois. This was the largest group that has ever been taken into the Illinois organization. On the far right is J. B. Turner, Fayette county, past president, who presented each man with the Association's Code of Ethics.

Cows give more milk under cool ALCOA ALUMINUM ROOFING

It pays in extra gallons of milk to keep dairy cattle *cool* in hot weather!* Keep *your* cows cool with Alcoa® Aluminum Roofing. It reflects the sun's heat, lowers barn temperatures 15° by actual test.

Made of exclusive new alloy for increased strength and resistance to corrosion for *longer life*, Alcoa Aluminum Roofing comes in new 48"-wide sheets for *fast, easy* application.

Buy from your Alcoa Roofing Dealer who displays this sign.

*Tests by leading agricultural colleges show that milk production drops sharply when temperatures rise to the eighties!

Build this Alcoa Aluminum POLE BARN at a 75% SAVINGS!

For just $1.00 you can get complete plans for this money-saving "U"-shaped 70-cow pen stable pole barn. YOU SAVE up to 75% due to low cost, pole-type construction and use of Alcoa Aluminum Roofing and Siding. Plans, prepared for Alcoa by Cornell University, *guide you step by step* with drawings, photos and directions—are simple and easy to follow. Send coupon today!

COMPLETE PLANS ONLY $1.00

ORDER PLANS FROM THIS COUPON

ALUMINUM COMPANY OF AMERICA, 2110-E Alcoa Bldg., Pittsburgh 19, Pa.
Please send me plans checked below. I enclose $1.00 to cover cost of printing and mailing for each plan checked.

- ☐ PB-8 Pole-type Aluminum 70-cow Pen Stabling Barns (three buildings, as illustrated)
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- ☐ PB-2 Pole-type Aluminum Machinery Center, 35' x 54'
- ☐ PB-3 Pole-type Aluminum Southern Poultry House, 40' x 234'
- ☐ PB-4 Pole-type Aluminum Loafing Barn, 52' x 65'
- ☐ PB-5 Pole-type Aluminum 30-cow Pen Stable Barn, 69' x 91'
- ☐ PB-6 Pole-type Aluminum Northern Poultry House, 40' x 130'
- ☐ PB-7 Pole-type Aluminum Warehouse or Agricultural Center, 56' x 208'

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Flip Charts

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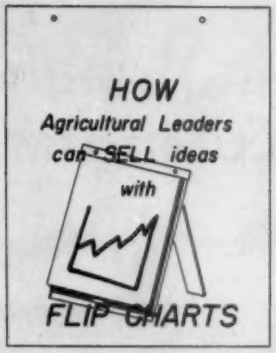
Tell Sell



By Ben Brown
Brattleboro, Vt.

● THIS IS AN AGE of visual instruction . . . of slides and strip films, motion pictures, demonstrations, and tours.

Whoever it was who figured out that 85 percent of what we learn and remember enters our consciousness by eye was a genius. Just about every county agent, vo-ag instructor, club leader, and agricultural field representative is well aware of this truth.

Still, visual idea transmission has perhaps reached its apex in the advertising field through a form so simple and so efficient it remains within the means of the most modest agricultural worker's budget. This visual aid form is the plain, old-fashioned, flip chart.

Flip charts, skillfully built and applied, will do things no slide series or motion picture can possibly accomplish. They will do one thing better than any other visual field. This one thing is *sell*. They not only teach, passing information from the mind of one man to the minds of a lot of men, but they pass along as well the frame of mind through which that information will be most effectively accepted and applied.

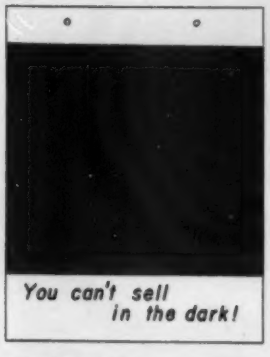
Charts Create Enthusiasm

Flip charts can be the means of creating such intangibles as enthusiasm, demand, and inspiration. Most other aids, while many times more expensive and elaborate, are all designed primarily to aid in the dissemination of purely objective material.

And while most of the agricultural worker's work is objective enough, there are times when he must *sell* his ideas, times when it is not enough merely to pass out information and hope it sinks in. At such times the properly handled flip chart may well be more valuable than the most costly motion picture.

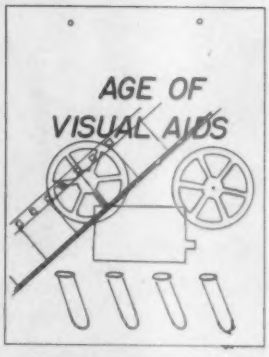
Why? *Because flip chart technique demands that the individual and his personality join physically with the visual aid.* The chart becomes part of the man and helps the man as much as it helps the audience. Other aids, particularly those requiring darkened rooms, leave less opportunity for interpretation.

WORDS . . .
People remember them.



A SHOCKER . . .
They get the point.

SYMBOLS . . .
Use simple ones.



COMBINATIONS . . .
Simple, but effective.

PEOPLE . . .
Use "stick" figures.

CLUTTER
Two elements enough!

STA-FRESH* SPURS BOOM IN SILAGE FEEDING

. . . Keeps Grass Silage Fresh, Sweet-Smelling, More Nourishing

CATTLE CLEAN IT UP! Farmers report that their cattle prefer "STA-FRESH" silage over untreated silage. In free choice feeding tests, cows consumed better than three times as much of the more nutritious bisulfite-treated silage.

ENDS "SILAGE STINK!"—"STA-FRESH" proves blessing to farmers and their wives by ending the contaminating, all-pervading odor of untreated grass silage.

EASY TO USE! When you use "STA-FRESH", just cut your crop at the best stage of maturity, regardless of weather, and mix in the STA-FRESH powder at the blower automatically with an easy-to-make applicator.

*Reg. Trade Mark

NEW YORK, N. Y. – Reports from county agents and farmers in all parts of the country indicate rapidly increasing interest in grass silage for feeding dairy cows and other cattle. This has been spurred by the remarkable success of "STA-FRESH" Sodium Bisulfite, the amazing powder that keeps silage green and nutritious for months after ensiling.

Makes A Superior Feed

Backing up research findings which were featured in farm publications for the past two years, these on-the-farm reports show particular enthusiasm about the elimination of obnoxious "silage stink" by use of "STA-FRESH" and about its many advantages in making grass silage a more palatable and nourishing feed.

"STA-FRESH" treated silage was found to remain virtually as green, fresh and sweet-smelling as fresh-chopped grass. Tests showing more total digestible nutrients, with less loss of dry matter and a far higher sugar and carotene content, were supported by the way cattle literally gobbled up the treated silage.

New Importance To Low-Cost "Grass Farming"

Here, farm tested and proved, is the answer to supplying a good, low-cost cattle feed which provides the energy cattle need, the taste that makes them want it, and the vitamin A required to produce rich milk and quality beef. "STA-FRESH" has proved effective in ensiling such forage crops as grass and alfalfa in either upright or trench silos.

Low Cost Cited

The gain in feed value by itself more than offsets the cost of "STA-FRESH", which comes in the form of an inexpensive, easy-to-use powder, packed in 80 pound bags. Only 8 lbs. treats a full ton.

FREE FOLDERS FOR DISTRIBUTION AT YOUR MEETINGS — Folders tell how to use "STA-FRESH" and describe applicators which the farmer can easily make for himself. Let us know how many copies you can use. Write today to GENERAL CHEMICAL DIVISION, Allied Chemical & Dye Corporation, 40 Rector Street, New York 6, N. Y.

The Secret of Uncle Sam's Expand-able Arteries

The larger part, by far, of the great lifestream of goods that helps keep you and your country strong and vigorous flows through the nation's vital arteries of transportation — the railroads. And this is done with unique economy in manpower, fuel, and other materials.

Perhaps the most remarkable characteristic of these rail arteries is their inherent ability to expand their capacity more readily and with greater economy than any other form of transportation — particularly in times of national emergency. The secret, of course, lies in putting more tons in the cars and more cars in the trains.

But if the nation is to have the full benefit of these advantages, the railroads should have greater freedom to adjust their rates and services promptly — greater freedom to compete with other forms of transportation on an equal basis.

Association of American Railroads

Transportation Building
Washington 6, D. C.

Contact between leader and audience with flip charts reaches a new high. The audience watches the chart. There is nothing else in the room to see. Besides, common courtesy rather demands that the audience look at the chart. It is there and the speaker is pointing at it.

Speaker Can Control Audience

Meanwhile, standing behind his charts, the speaker watches his audience. He can tell when his group has had enough. He is forewarned if the subject threatens to tread on tender local toes. He can spot the spark of local enthusiasm when and where it appears and adapt, adjust, and guide his story with accuracy. He can watch the time, watch for nodding heads, keep an eye on the back door, the side door, the chairman, and the next act.

And, with his charts to help him as far as detailed information is concerned, he can apply nearly full attention to whatever immediate problems may arise, attaining perfect control of his enthusiasm and the situation.

Furthermore, as 4-H members know, the very motion of lifting a chart, the suspense it can create and the proud flourish with which it is turned, can be a most effective and natural gesture. It adds emphasis to the dullest of us all.

Charts Are Adaptable

Another great advantage of charts, of course, is their adaptability to varied conditions. They can be handled successfully in barns, in the out-of-doors, in school rooms, church basements, hotel rooms, meeting halls, and from the back of a truck. They can be used in daytime or dark, with or without current. A good gas lantern will do.

They can be used under the most formal circumstances without apology. They can be used in overalls and not seem out of place.

And their last big point is their cost, which can range down to practically nothing.

Since flip charts are personal things, the first consideration perhaps is how to go about making one. Then, we can discuss how to use a set to best advantage.

Keep Them Simple

First of all, they don't have to be elaborate. In fact, most people put far too much information on their first set of charts.

Charts are best used to illustrate *ideas*, and an idea doesn't need much to be "seen".

IDEAS that WORK

Conservation Model

Here is an idea for an exhibit at your local fair to demonstrate good conservation methods.

A model farm was constructed, made of plaster of Paris, and laid out to scale. The land classes were painted in accordance with the land capability chart. Farm buildings were made in proportionate size to the overall model farm.

Terraces, waterways, and ponds were included. Actual plots of grass were used for seeded meadows and other areas. An overhead sprinkler sprayed water on the model farm to simulate rain. This showed all interested observers how the various conservation measures helped handle the water which fell on the farm. It was an effective way to show the value of good conservation measures.—*Lester Solomon, soil conservationist, Clarksville, Tenn.*

Do you have an idea that works? Better Farming Methods will pay a minimum of $5 for accepted ideas or teaching techniques that you have used successfully in YOUR work with FFA, 4-H, or farmers.

Charts don't have to be artistic. In fact, just ordinary brush lettering is about as legible as any fancy type face. India ink and some brushes, plus imagination, can do wonders. Charts should, however, lead the story. They should illustrate the important points of a talk, much as do the headings in an outline.

How many charts? This all depends. Some charts can hold an audience for five minutes. Others tell their story in as many seconds. But, they should not be uniform. Break your story up with complex ideas sandwiched between obvious ideas.

Every so often put in a "shocker." Illustrate with photostats, clippings from magazines, anything you wish, but make certain no chart becomes cluttered. The final test is to go to the back of the room and look at the chart with one eye in ordinary light. If you can grasp the idea under those conditions, the chart is okay.

This of course, means eliminating detail. Graphs, for example, can be very general. Just a big arrow, for example, can stand for a complicated

THIS NEW IDEA ELEVATOR has an inside width of 17½ inches, big enough for regular or round bales, or big gulps of grains. Trunk is box-crimped, the entire suspension trussed for permanent rigidity. Centrally fastened flights prevent tilting. Your choice of big, non-choking tilt hopper, or shovel-type. Power with gasoline engine, electric motor, or PTO. Worm-gear winch makes positioning safe and easy. Lengths 26 to 36 ft. with short truck; 34 to 50 ft. with long truck.

Pays for itself in one or two seasons!

New Idea elevator breaks bottlenecks caused by inefficient elevating equipment

On many farms expensive machines too often lie idle in the fields, while inefficient elevating equipment slows down crop-handling at loft or crib.

Replace outmoded elevating methods with a portable, many-purpose New Ideal elevator, and break this harvest-time bottleneck. A New Idea will handle round or square bales, ear corn or small grains and deposit them in bin or loft as fast as a man can unload.

In a single harvest season, many farmers have found, a New Idea elevator will pay for itself in saved time and labor alone. It lifts tons of materials directly and quickly with very little effort by the operator. Its lifetime, heavy duty construction is assurance against costly breakdowns and repairs.

See it at your New Idea dealer's

Have him demonstrate the New Idea elevator best suited to your farming operation and your buildings. Ask him for the location of nearby farms where you can see it in action. Our guess is that, once you've examined a New Idea, you'll never be satisfied with any other!

NEW IDEA FARM EQUIPMENT COMPANY, DIVISION AVCO DISTRIBUTING CORP.
Dept. 1528, Coldwater, Ohio

☐ Elevator
☐ Wagon & Wagon box
☐ Mowers
☐ "New Ideas for Handling Hay"
☐ Side-rakes & Tedders
☐ I am a student
☐ I farm____acres

Send coupon for free illustrated literature

NAME_____
ADDRESS_____
COUNTY_____STATE_____

economic trend. Exaggeration in pictures will be excused if you know your story and its details.

Size is important, and a chart can hardly be too big. Never try to work with anything smaller than 17 x 22 inches. See what convenient size your local printer has in stock in the way of fairly heavy paper. Then pick up a hundred sheets of stock at a time and stick to a uniform size.

In making up charts, remember also that they can be lighter in vein than your talk. Frequently, caricatures on the charts can lighten an otherwise heavy presentation and still you can dignify the story.

Stand Must Be Solid

To manage your charts, put them on a well-built stand, bolt them in place loose-leaf style. Make certain the stand will not fall down. It is fun to be casual, but it is bad to be embarrassed unawares. Be certain your stand is strong enough to stand up, even after the last chart is flipped.

As to use, learn your story so well you can tell exactly when and what is coming next, even if you will only give the talk a few times. Memorize your statistics, and for good measure print them in tiny type that only you can see on the charts themselves.

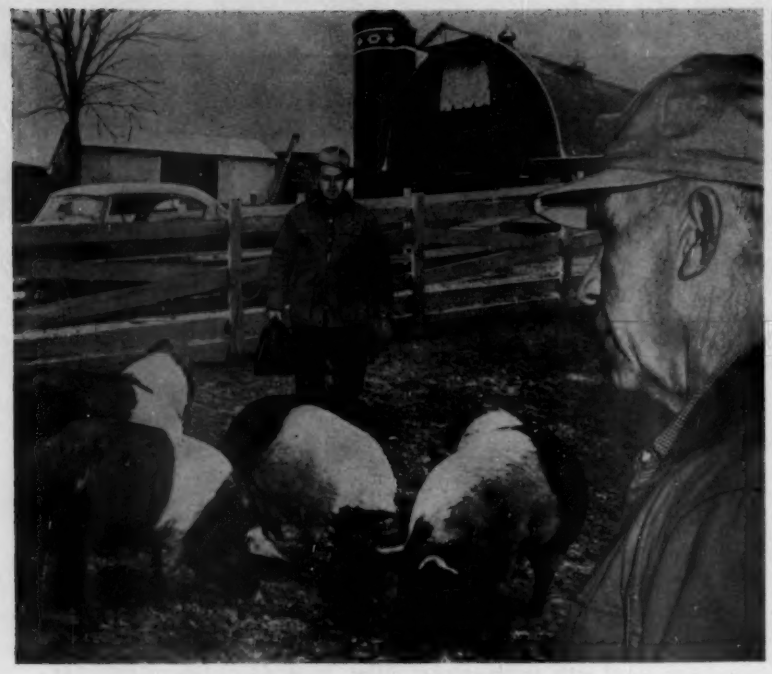
Get to the meeting early and try to mount your charts high up where everybody can see them. Standing on a chair with your presentation on a piano is not bad technique. Nothing is worse than "showing" people something they can't see.

Use a Spotlight

Spotlighting your chart stand is not only good visual technique—it is excellent psychology. The brightest thing in the room is generally the most important.

Another good idea, if you're working outdoors under lights, is to flyspray

". . . let's name our auxiliary the 'Future Farmers' Future WIVES' . . ."



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Nearly 1,000 newly-graduated veterinarians are being made available to our local communities every year.

Their ability to serve is backed by 6 years of intensive training . . . both in the scientific and clinical aspects of modern veterinary medicine. Trained to KNOW, they take the guess-work out of diagnosis, bring to your livestock owners a new certainty in coping with even the most severe disease problems.

When livestock disease strikes, the best advice you can give a farmer is to consult the local veterinarian. His knowledge and skill are the best investment an owner can make.

This message made possible by the American Foundation for Animal Health

RATS

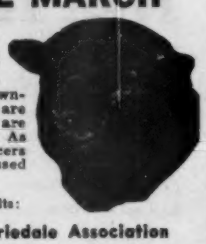
WISCONSIN ALUMNI RESEARCH FOUNDATION

kill 'em with

warfarin

CORRIEDALES ARE ON THE MARCH

They "fill the wool sack and fatten the bank balance." That's the reputation of CORRIEDALE Sheep with thousands of owners. Wherever sheep are raised, Corriedales are the popular breed. As wool and meat producers they are unsurpassed money makers.



For free information write:

American Corriedale Association

Rollo E. Singleton, Secretary-Treasurer

108 Parkhill Columbia, Missouri

the area where you're working and your charts as well. The author ruined a golden opportunity one night when he swallowed a June bug.

Then, read your charts. Always read aloud what is said on a chart. If you don't, the audience will be reading and not listening to you while you elaborate. Frequently, the detail is more important than the illustrated theme.

If you have a spectacular chart coming up, lead into it. Make it a big thing.

Watch Your Audience!

And watch your audience! It is easy to tell when they're bored and want to go on. And it is just as easy to see when they're more than ordinarily interested and want more details.

You should know enough about your subject to talk 10 times as long as the program will permit.

Of course, timing is a big advantage of charts. You always know where you are in your story. You can more easily fight the temptation to digress. You can speed up your story point by point instead of running out of time in the middle of you subject. And audiences appreciate being let out on time.

The next time you have an idea which must be sold to your farmers as well as passed on to them to take or leave behind, try a flip chart series. —*End*

★

Arid Land Conference

On April 26-May 4, a world conference and symposium on "The Future of Arid Land" will be held at Albuquerque and Socorro, N.M. The conference is sponsored by The American Association for the Advancement of Science.

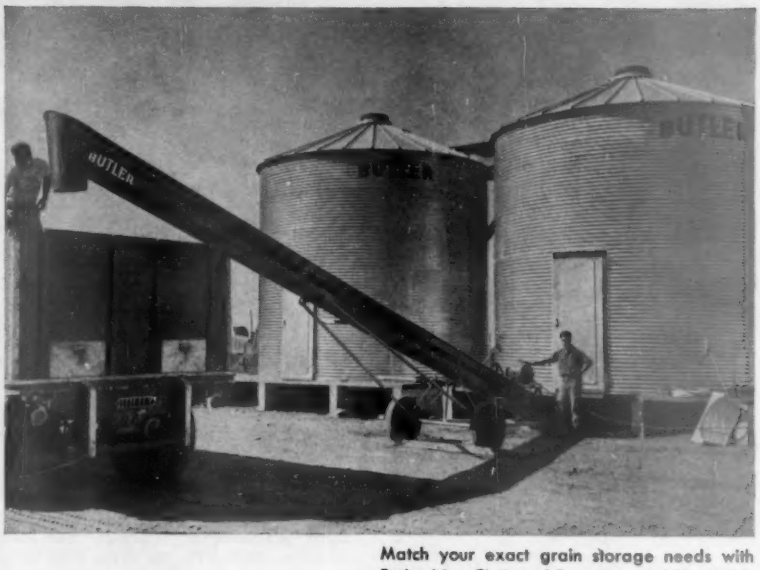
The purpose of the meeting is to bring together people from various sciences with the idea of pooling their ideas and efforts in the solution of scientific and developmental problems of arid zones.

Included on the program will be technical sessions on arid zone development, evening lectures designed to inform the general public of the importance and challenge of arid lands research and development. Also included will be a comprehensive field trip and numerous informal discussion group meetings.

Ag leaders near this area and interested in this subject will no doubt find this conference of great help and value.

★

It's amazing the heights a man can attain by remaining on the level.

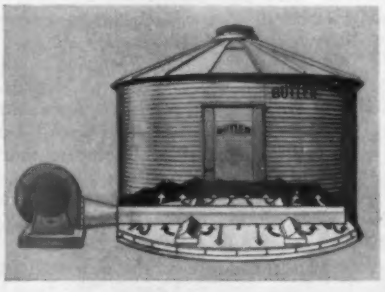


Match your exact grain storage needs with Butler bins. Choice of five sizes—1,000, 1,330, 1,650, 2,200 and 3,276-bushel capacities.

PLAN NOW to Store Your 1955 Crop safely in BUTLER bins

You can be sure all your 1955 crops will be stored *safely*—clean, dry and bright—when you buy Butler steel grain bins. Now is the time, well ahead of harvest, to make your crop storage plans and avoid last minute harvest-time rush.

Butler bins are precision punched and formed. They are easy to erect. They are weather-tight, fire-safe, bird and rodent-proof. Your grain stays "seed clean," bright and dry for highest grade and top quality feed. Galvanized construction assures you many years of dependable, low-cost storage. Butler bins qualify for ASC storage facility loans.



See your Butler dealer now about Butler bins for new crop storage and Butler Force-Aire crop conditioning equipment.

Butler Force-Aire crop conditioning equipment circulates natural, unheated air evenly throughout your stored crop, holds moisture content at safe storage levels, helps control insect activity. You can install Butler Force-Aire in your present bins and granaries . . . protect *all* your crop.

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Manufacturers of Oil Equipment
Steel Buildings • Farm Equipment
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Special Products
Factories located at
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For prompt reply address office nearest you:
Butler Manufacturing Company
7331 East 13th Street, Kansas City 26, Mo.
931A Sixth Ave., S.E., Minneapolis 14, Minn.
1031 Avenue W, Ensley, Birmingham 8, Ala.
Dept. 31A, Richmond, Calif.

I'm interested in Butler bins and the new Butler Force-Aire drying equipment. Please send me more information and the name of my nearest Butler dealer.

Name_____

P. O._____

R. F. D._____ State_____

Ivan W. Bigalow, Department of Agricultural Engineering, Cornell University, is shown here with the large wall charts on pole-type construction to be used in farm meetings throughout the nation in Koppers educational program.

Koppers Plan Program On Pole-Type Buildings

A comprehensive "how-to-do-it" program for farmers on the construction of large pole-type utility buildings is being made available to agricultural communities over a large part of the nation by Koppers Company, Inc.

Through the visual training available in a packaged educational program called the Pole-Barn Clinic, farmers will have the opportunity to learn in community meetings the step-by-step construction procedures of the new concept in agricultural architecture.

Each farm community meeting will begin with the showing of a 16mm., full-color motion picture showing actual erection of a large pole-type machinery shed on the farm of Floyd Calhoun in Chenango county, New York. Narration with the film describes the step-by-step construction from the digging of pole holes to the final hanging of the doors on the building.

After seeing the actual building process, farmers will have the opportunity to learn construction details from a series of large 38 x 54 inch charts which explain the ease and economy of pole-type building with ordinary tools.

Actual planning for the meeting in a community will be on a cooperative basis with farm education leaders playing an important part. Wherever possible, farmer organization leaders, vo-ag teachers, or county and district extension agents will be asked to participate by explaining the visual construction charts and leading the discussion which follows.

This educational program will not, however, be limited to areas served by a Koppers farm dealer. In other communities, Koppers will make the complete program available on a scheduled basis at the request of recognized farm education leaders.

For more information, ag leaders are requested to write to George Van Gundy, manager, Public Relations Section, Koppers Company, Inc., Pittsburgh 19, Pa.

★

I-H Company to Sponsor New 4-H Program

International Harvester Company has just announced sponsorship of awards in a new 4-H program to be known as the National 4-H Boys' Agricultural Awards Program.

The company pointed out that the new program will recognize the cumulative efforts of 4-H boys in all 4-H agricultural programs, including dairy production, electrification, field crops, forestry, gardening, meat animals, poultry, soil and water conservation, and tractor maintenance.

As a consequence, the new agricultural program will honor "the best in 4-H" based upon their respective records in all of the 4-H agricultural programs. Harvester considers the new program to be in keeping with its objective of giving proper recognition to the most capable and deserving 4-H boys.

The new program has been approved by the cooperative extension service. It is designed to encourage 4-H boys to gain a better knowledge of those agricultural projects which contribute to better farming.

Wo-o-o, Wo-o-o! Boy, Was it Fun!

Who had what fun?

Why, the cub scouts throughout the United States. Last January was designated as "Railroad Month" on the cub scout activity list. Through the cooperation of the Association of American Railroads and individual railroad companies, thousands upon thousands of cub scouts got a first-hand "look-see" into railroading.

Scouts literally swooped down on practically every terminal and trunk line railroad in the country in their enthusiasm and desire for information about railroads. As one indication of their enormous appetite for railroadiana, nearly 4,000,000 booklets on the railroads, including some highly popular cartoon books, were distributed by the Association of American Railroads from the organization's headquarters in Washington, D.C.

Tour Railroad Shops

With "open house" on the railroads the order for January, the youngsters and their leaders swarmed through passenger stations, traffic control centers, dispatchers offices and many other intriguing places that would hardly ever be accessible otherwise. They toured railroad shops and engine houses, rode turntables with locomotives, roamed through large freight yards and marine terminals, invaded switch shanties and signal towers, clambered aboard road and yard engines and basked in the atmosphere that is to be found only in a "crummy" (old caboose).

They saw "hump" yards in action, where long freight trains made up of cars belonging to a score or more lines are classified into still other trains and headed out in as many different directions.

Watch Machines Work

They saw freight cars jacked up and their "trucks" replaced with rebuilt units. They saw wheels being reground in humming repair shops and powerful overhead cranes lifting engines out of locomotives and locomotive bodies from their underframes.

And what did the cub scouts think of all their adventures in railroading? Well, one of them probably summed it up best in a letter to the Chesapeake and Ohio Railway, which handled 7,500 scouts on its own lines and some 15,000 more in conjunction with other railroads during the month. Wrote this youngster in appreciation of a tour in Virginia:

"We like your train very good. We like the shipyards. We like the coal yards. We enjoy the hole (sic) trip."

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Teacher's Farm Shop

What Do Our Supervisors Like To See In Shop Classes

By T. J. Wakeman

Teacher Trainer in Farm Mechanics
Agricultural Engineering Department
Virginia Polytechnic Institute

● WE, AS TEACHERS, want to satisfy and impress our supervisors. Furthermore, we know it takes only a little more planning to do a good job teaching farm mechanics than it does to do a poor job.

We know that when we do a good job we reap self satisfaction, respect, compliments, and good pay. *We also know if we do a poor job we are dissatisfied; we think we are overworked and underpaid; we lack self respect, and think the whole world is against us.*

The following are some of the activities supervisors like to observe when they visit our farm shop classes:

Students Should Be Busy

They like to see each student busy making a worthwhile project needed at home. If the student is a freshman the project should be simple to construct. It should involve the simple skills of one or more sections of farm shop work. Projects for the home farm shops will be in progress.

If he is an advanced student the project will be more complicated, needed at home, and providing skills not previously developed.

They like to see a schedule displayed in the shop showing the section of work in which each student will perform during each day of the year. The students should have help in setting up this schedule. The student should know what section of work he will be doing at all times. Too, he should know what projects he intends to make during each calendar period (usually six weeks).

Such a schedule helps in giving each student a well rounded program, involving the basic skills in each type of shop work. All of this can be done while making needed projects for the home farm.

Supervisors do not like to see all wood work or all metal work being done. They like to see a balance among the eleven types of shop work.

Projects Should Teach

They like projects that provide educational opportunities.

(1) Simple drawing, sketching, and print reading principles should be taught to all the groups during the freshman year. These basic principles will be used by all the students during their life time, if they learn them early.

(2) Good plans are being provided for student use. The students will be making bills of materials and interpreting the plans. The instructor will be providing adequate supervision.

(3) All types of tools will be used in making the projects. For example, if flat metal is being used, some of the metal will be cut with a cold chisel, some with a handled cold cutter, a hand hack saw, an acetylene cutting torch, and any other metal cutting equipment that is available.

Learn Skills Well

(4) They like quality of workmanship. Practice skills, where needed, should be repeated until a high quality of workmanship is performed. If a lap joint is needed, insist on making lap joints until he can make them satisfactorily. Then use it on the project.

(5) There should be evidence of further application of skills being used in the home farm shop. Here, as in the school shop, needed projects should be in progress. Big jobs which occupy too much space in the school shop should be made at home.

Here is a new instant-installation safety door lock that assures positive security at home or away. Small and compact, it can be installed permanently or temporarily on any inward opening door. No screws, no tools, no cutting or drilling is needed. Made by Dalbert Gard & Associates, 2760 W. Eighth St., Los Angeles 5, Calif.

Use Positive Teaching

(6) In studying the plans for each project, be certain there are *desirable kinds of educational activities involved.* Do not encourage students to make a homemade tractor to teach him how impractical it is. Guide him in making visits to those that tried such enterprises.

Do not allow him to learn by negative teaching. Determine the practical and educational value of each project before it is started. Supervisors do not like to see impractical, non-educational projects being made.

The supervisor likes to see the teacher and pupils happy and at ease. The student should know why he does each job. He should also know the job is educational, is needed, and is being well done. With such an understanding, the teacher and pupil should be happy and at ease. Where this situation exists the supervisors usually find the following.

Shop Must Be Clean

(1) The shop will be free of dirt, trash and "extra baggage." Among the extra baggage the supervisors mentioned: Surplus food for the cafeteria; unfinished projects left for long periods of time; personal cars; barrels of oil; surplus war equipment; and the like. Unless these items are used daily in the shop for educational purposes, they should not be in the shop.

(2) The shop is painted attractive colors and is well lighted. It is surprising how attractiveness, with plenty of light, will increase the quality of workmanship in a farm shop.

To paint the floors not only encourages neatness and quality of workmanship, but it helps to safeguard health. The paint prevents the lime in the concrete from being circulated in the air when sweeping.

(3) The tools are usually on panels

or in tool cabinets. The tools are well arranged with silhouettes painted behind them for quick inventorying. The cabinets are labelled. These practices frequently carryover into the home farm shop.

Keep Books Handy

(4) There is a list of jobs and reference books in each cabinet. This helps to make the teaching of farm shop easier. The books should be available where and when they are needed. Students seldom become self-reliant in farm mechanics unless they learn to use references effectively.

(5) Supervisors think the extra tools not found in the cabinets should be located in a tool room with the needed shop supplies. The students should know where the extra tools and supplies are. This makes the job of the teacher simpler and encourages organizational practices in the home farm shop.

(6) The supervisors think each student should be using one or more references at all times. If they can do a job without a plan, a reference or notes, the project is not often educational.

Cabinets Hold Supplies

(7) Adequate teacher supplies are located in a well planned teacher's supply cabinet. These cabinets are planned so that teaching materials can be located in seconds for any section of farm shop work.

(8) The supervisor finds the boys becoming more self reliant—yet they call on the instructor for enlightenment on shop problems.

(9) The supervisors like to find the shop equipment adequate and in good mechanical condition.

(10) The equipment is being used in such a way the supervisor knows the student has been educated to use the equipment.

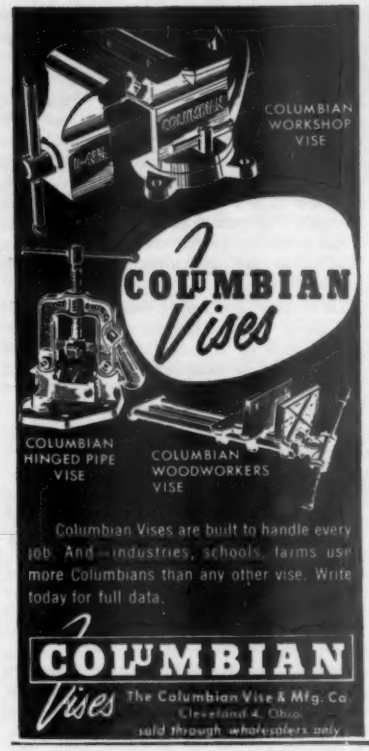
Entire Shop Is Used

(11) All of the shop space is being used during the entire school year. All types of shop work are being done; welding, tool fitting, cold metal, etc. Some supervisors say all the students are usually crowded around the welders and planer and that 80 percent of the shop is not being used.

(12) Students and teacher evaluate the work together. Ways and means are agreed upon as to how the student can improve his work.

(13) Safety is being practiced, giving the students and teacher an added sense of security.

In situations like these, your supervisor will look forward to visiting you and you will tell him to hurry back to see you.—*End*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Helpful Booklets Pages 39-42

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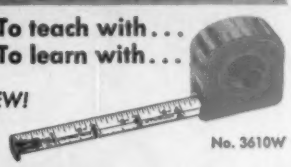

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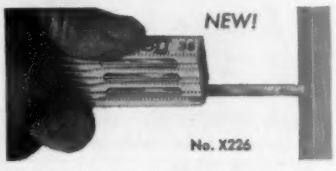

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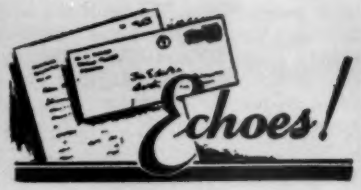

A Boost for Teachers . . .

Dear Mr. Schaller:

Your most interesting March issue of Better Farming Methods to hand. It is most instructive. Your editorial regarding training for teachers is most excellent. At the very moment the Metropolitan Life over their six o'clock broadcast is making a very interesting campaign to get women interested in teaching and in fact are using a booklet on the subject.—*John A. Gunn, Toronto, Ontario, Canada.*

Comments on Cooperation . . .

Dear Mr. Schaller:

The April issue of Better Farming Methods contains a number of rather interesting items. I would like to personally thank you for your story of Guy Fuller's approach to help vo-ag teachers and FFA boys develop soil conservation "know-how." I am sure, too, that Guy appreciates your program.

Your editorial based upon the lament of an Illinois Farm Adviser is, I think, particularly timely. Human nature being what it is, it is all too easy to criticize and all of us do too much of it. I feel that although the situation described by the Farm Adviser has existed and in some places still exists that there are many counties where constructive and cooperative work is in progress.

I would like to suggest that as a follow-up to the Farm Adviser's story you attempt to see if the other side of the picture cannot be printed in such a way that it will encourage local leadership to get together to promote harmony, understanding and accomplishment.—*B. B. Clark, state conservationist, Champaign, Ill.*

Note: We certainly shall try for the story on local cooperation and understanding. Do any of you ag leaders have a cooperative program in your county that others might be interested in?—Editor.

Dear Mr. Schaller:

In the April, 1955, issue of Better Farming Methods, I first read the article by an Illinois farm adviser entitled "Me? I'm Fed Up." While reading it, I was strongly tempted to write of the situation here in Litchfield county, Connecticut, which is somewhat different than it is in Illinois. Then, after reading your editorial, I found that you had covered most of the points that were in my mind.

Relationships between the three organizations, Extension, PMA and SCS have been very cordial here in the county. Of course, we in extension criticize the top level SCS and sometimes PMA, as I expect they do us. But, here in the county the three organizations try to work together to do the best job they can.

This cordial relationship is due, I believe, to about three factors. First, we have a strong county agent who has been on the job in the county 25 years. Second, we have been fortunate in having personnel in both, what was the PMA, and the SCS organizations that were extremely cooperative. And third, the PMA program in this county is primarily limited to the agricultural conservation program.

Of course, the fundamental reason for the good cooperation here is, I believe, the nature of the individuals involved. They are all broadminded, public spirited men who are able to let their cooperative instincts override the natural selfishness that we all have.

Congress has given us a job to do. It's up to all of us at all levels, from Washington down to the state offices to the county offices, to put out the best coordinated program we can. Only in that way can we be fair to the farmers.—*C. Edwin Smith, associate county agent, Litchfield, Conn.*

Dear Mr. Florea:

I really enjoyed the article "Me, I'm Fed Up!" May I have your permission to quote from this article to be published in the farm page of the Du Quoin Evening Call?

I would expect to give your magazine, Better Farming Methods, credit for the source of information.—*Leslie W. Rogers, farm adviser, Pinckneyville, Ill.*

Note: This letter was addressed to J. H. Florea, editorial director. You have our permission to quote from the article.

Dear Mr. Schaller:

We, in Vermilion county, Illinois, feel that the Illinois Farm Advisor quoted in your April 1955 issue is certainly to be pitied. The poor fellow must have an awful time looking other people in the eye, much less himself in the mirror. Our experience here is that the various agencies can and do work together for the benefit of the farmers of the county.

None of us are "Johnny-come-latelies" on the job. Harry Lenhart, county ASC chairman, has been chairman for 2 years and a member for 7 years. George Kinder has been an SCS farm planner for 19 years, the last 7 in Vermilion county. Orin W. Hertz has been a farm adviser for 18 years, the last 8 in Vermilion county.

When SCS was assigned certain definite responsibilities in regard to specific ACP practices several years ago, an early meeting was held with SCS, the SCD Board, PMA and Extension represented. The potential SCS work load was studied and determination made that additional help was needed. The PMA (now ASC) authority to set aside up to five percent of ACP funds for this purpose was agreed upon and has been followed each year since. With this help SCS gets the job done. On March 9, 1955, the ASC committee asked SCS, the SCD board, and the farm adviser to meet with them to make recommendations for the 1956

ACP program. A most constructive meeting was held. The present ACP emphasis on the more permanent soil conservation practices is certainly in the interests of the "general welfare" of us, the people of the United States.

Beginning in 1949 our PMA (ASC) committee has provided a soil sampling service. This has brought the Extension-Farm Bureau soil testing laboratory and ASC into close contact. The present contract in use on a statewide basis embodies the ideas we used by agreement from the start. The fact that the present ACP practices that provide Federal assistance for limestone, phosphate, and potash applications require soil tests prior to application is most constructive. ASC receives a copy of soil test results and recommendations. However, when the farmer asks for fertilizer (mixed goods) recommendations, the ASC sends him to the farm adviser. We work together.

As to farm organization criticism of ASC and SCS, once again it is a matter of understanding. Last June, Extension and Farm Bureau entertained 55 Danville business and professional men on a two-way tour of four Vermilion county farms. SCS had a man on each tour who actively helped. One of the farms toured was that of an ASC county committeeman and another of an ASC community committeeman. Three of the four farms are active SCD cooperators. Farm Bureau board members have enough business to take care of in their meetings and enough problems in their own field to not waste time picking ASC and SCS to pieces. The SCD board members and ASC people operate on the same basis. The same holds true for the "hired help."

If this letter serves only to emphasize that agricultural agencies with various programs that may overlap in spots can and do work together for the common good of "Agriculture" in contrast to "Me, I'm Fed Up" it will have been worth the effort.—*Orin W. Hertz, farm adviser; George Kinder, farm planner; and Harry Lenhart, chairman, ASC, Danville, Ill.*

★

Oh? . . .

Dear Mr. Schaller:

This may come as a bit of a shock. But did it occur to you while you were writing your editorial, "Is Your Doorstep Clean?", that you were doing exactly what you pretended to abhor? You were criticizing in a most destructive way those whom you said were guilty of criticizing.

Actually, you started your readers on a false premise at the start, and, I regret to concede, led them very adroitly to a false conclusion.

Your false premise was this, "Such *criticism* has left the realm of sanity and borders on hysterical propaganda . . ."

The Good Lord help us all if the honest, simple truth must be labelled "criticism". And if those who dare to tell the truth are to be branded as insane lunatics spouting "hysterical propaganda", then our country has drifted much too close to the brink for comfort.—*W. L. Southworth, program adviser, The National Association of Soil Conservation Districts, League City, Tex.*

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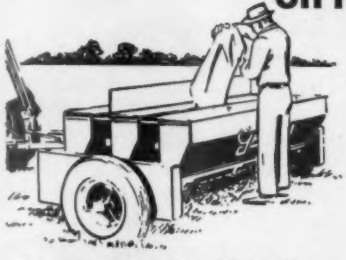

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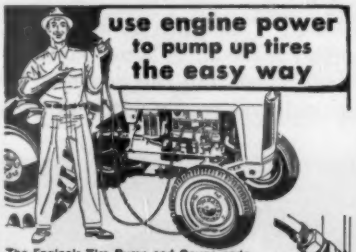

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For What It's Worth

By HERBERT L. SCHALLER, Editor

Fun and Frolic

There is nothing serious on this page this month. In fact, it's rather personal.

I'd like to show you a few pictures and tell you a bit about the vacation my wife and I recently spent in Florida.

I have been hearing for years from good friends of mine in the state of Florida that it was the garden spot of the country. I don't know as I either want to dispute them or acknowledge their claim, but certainly we did enjoy the state. Our two weeks began on February 20 and we landed back in our home state on March 6. During that two-week time we had sunshine every day and temperatures well above 70.

We located at Hoadley's Resort, Englewood, Fla. There we had a cabin directly on the Gulf and were within a stones throw of the water.

My wife and I spent many an hour on the beach, and literally walked miles along the water's edge looking for shells. We brought back enough to practically pave our driveway.

One of the most delightful trips was a day spent on Sanibel Island, just off the coast from Fort Myers. The island is noted for the number of shells that can be found along the beaches, and we enjoyed the day hunting for rare ones.

I spent one delightful afternoon with County Agent John Henry Logan, Largo, Fla. He proved to be a most gracious host, and took me on a tour of his county. I was particularly impressed with the pasture renovation work and the numbers of beef and dairy cattle.

One delightful stop was made at the home of one John Taylor. Here we saw some magnificent orange and grapefruit groves, and had a chance to visit with a man who is recognized in Florida as one of the outstanding citrus growers.

That's County Agent John Henry Logan (right), as we talked with a local farmer.

John Henry was especially kind to us, for upon departure we found a goodly portion of Florida oranges and grapefruit in the backseat that kept us in delicious orange juice for the remainder of our stay in Florida.

On our return trip home, we took time to follow Highway 90 along the Gulf from Florida to New Orleans. On the way, I spent a day with County Agent E. N. (Norbo) Stephens, Escambia county, "The Garden of Eden," with Pensacola as home base.

We went into the heart of his agricultural region. It was truly amazing, and I never expected to find this type of farming in Florida.

Norbo Stephens didn't lie to me. Escambia county is a real "Garden of Eden."

As you can see by the picture, the oats and wheat were close to knee high. Again, I was amazed at the livestock industry that the South has. Truly, agriculture is changing the South, and in the South.

On the way north to Baton Rouge, we left the main highway and followed the Mississippi River Levee for some distance. This was one of the most interesting drives that we took and both of us thoroughly enjoyed the off-highway countryside and the scenes along the levee.

If there is any point at all in my telling you these brief highlights of our vacation, it would be to urge you to take time off this year for a good one.

We couldn't "afford" to spend two weeks in Florida, if you were to consider our responsibilities and our material wealth. But both my wife and I thought that we owed it to ourselves and to our family to spend some time in utterly different surroundings—a "change of pace" in other words.

No man ever lived who was indispensable. The job and the man both improve when each is separated from the other for a period each year.

Too much work? Can't afford it? Takes too much time? Perhaps the answer is "yes" to each of these questions.

Yet the wise leader will use a certain period of each year to rest both body and soul.

It pays dividends both to himself and to his people.

H L Schaller

Merck Announces a Superior New Coccidiostat

NiCarbazin

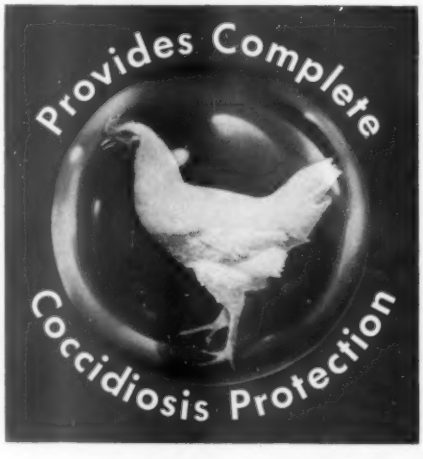
NiCarbazin is an entirely new chemical developed by Merck specifically for the prevention of coccidiosis outbreaks in chickens. It is more effective than any other coccidiostat now used for continuous preventive feeding.

STRIKES EARLY IN LIFE CYCLE

NiCarbazin attacks dangerous species of poultry coccidia early in their life cycle. It destroys the parasites before they extensively injure the birds' ceca and intestines. This protection of the gut is so complete that *exposed birds on NiCarbazin do not have bloody droppings.* At the same time, NiCarbazin permits the normal development of immunity.

CAN CUT DEATHS TO ZERO

During extensive use in the field, against both cecal and intestinal coccidiosis, NiCarbazin at preventive levels in feeds repeatedly has cut mortality to zero, even when deaths in untreated lots were as high as 60 per cent.



PROMOTES SUPERIOR GROWTH AND FEED EFFICIENCY

At marketing time NiCarbazin-fed birds have weighed 5 to 6 per cent more than untreated birds and have required less feed per pound of gain.

INCREASES POULTRY PROFITS

Because they are protected completely against all damaging coccidia, NiCarbazin-fed broilers are heavier, show finer finish, and bring premium prices. Large extra profits—such as $137 per 1,000 birds—are typical in exposed flocks fed NiCarbazin. The greater the exposure to coccidiosis, the greater is the return over feed cost when birds receive NiCarbazin.

ELIMINATES MORBIDITY *(Tissue Damage)*

NiCarbazin prevents internal damage from intestinal coccidiosis which so often results in unthrifty, low-quality birds.

AVAILABLE THROUGH FEED SUPPLIERS

NiCarbazin is available in poultry feeds of leading manufacturers. These feeds provide the most complete protection possible against coccidiosis outbreaks.

For details about NiCarbazin, write for FREE bulletin.

NiCarbazin Means No Coccidiosis Problem

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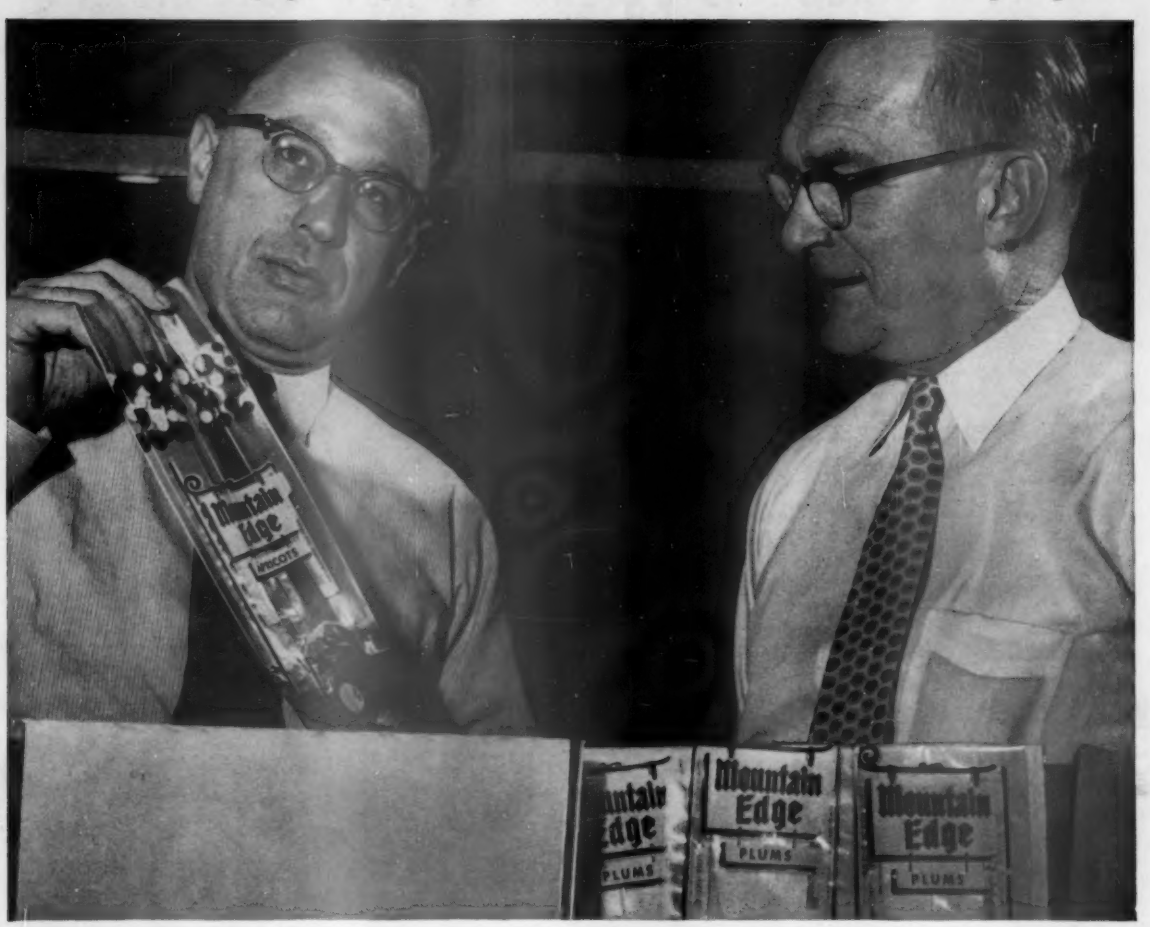
Manufacturing Chemists
RAHWAY, NEW JERSEY

THEY KNOW it pays to package in film made of BAKELITE Polyethylene



Packages were made of VISQUEEN "C" film of **The Visking Corp.** by **Pacific Waxed Paper Co.**, Seattle 4, Wash.

"Good experience for apples encouraged us to try it on apricots and plums"

That's the case history of Herb Frank and Paul Lancaster, Yakima, Wash., fruit growers and warehousers. Here's what they have to say:

"Polyethylene is a wonderful material for packaging. Our good experience with it for apples encouraged us to try it on apricots and plums. Although in 1954 we shipped only part carloads in polyethylene bags on a trial basis, we are confident that *there will be an increased movement of soft fruit in polyethylene bags* in 1955." The picture, taken after their crops were marketed, shows the type of bags used.

This is another example of how one success leads to another . . . why more quantity and kinds of fruit and produce are being packaged in film made of BAKELITE Brand Polyethylene. You will find the same advantages . . . strength for easy filling and protection, excellent printability for brand identification right to the consumer, and freshness of product that can lead to premium prices. See your local packaging supplier for all the facts or for a free informative booklet, write Dept. GJ-16.

DID YOU KNOW: Pipe made of BAKELITE Polyethylene provides a new, easy, low-cost way to the finest farm water system. Pipe is easy to install with simple tools.

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